913.747
Bea

University of the State of New York

BULLETIN

OF THE

New York State Museum

FREDERICK J. H. MERRILL *Director*

No. 41 Vol. 8

March 1901

WAMPUM AND SHELL ARTICLES

USED BY THE NEW YORK INDIANS

BY

WILLIAM M. BEAUCHAMP S.T.D.

ALBANY
UNIVERSITY OF THE STATE OF NEW YORK
1901

M73m-No3000

Price 30 cents

University of the State of New York

REGENTS

With years of election

1874 ANSON JUDD UPSON L.H.D. D.D. LL.D.
Chancellor, Glens Falls

1892 WILLIAM CROSWELL DOANE D.D. LL.D.
Vice-Chancellor, Albany

1873 MARTIN I. TOWNSEND M.A. LL.D. – – – Troy
1877 CHAUNCEY M. DEPEW LL.D. – – – – New York
1877 CHARLES E. FITCH LL.B. M.A. L.H.D. – – Rochester
1877 ORRIS H. WARREN D.D. – – – – Syracuse
1878 WHITELAW REID LL.D. – – – – – New York
1881 WILLIAM H. WATSON M.A. M.D. – – – Utica
1881 HENRY E. TURNER – – – – – – Lowville
1883 ST CLAIR MCKELWAY M.A. L.H.D. LL.D. D.C.L. Brooklyn
1885 DANIEL BEACH Ph.D. LL.D. – – – Watkins
1888 CARROLL E. SMITH LL.D. – – – – – Syracuse
1890 PLINY T. SEXTON LL.D. – – – – Palmyra
1890 T. GUILFORD SMITH M.A. C.E. LL.D. – – Buffalo
1893 LEWIS A. STIMSON B.A. LL.D. M.D. – – New York
1895 ALBERT VANDER VEER Ph.D. M.D. – – – Albany
1895 CHARLES R. SKINNER M.A. LL.D.
Superintendent of Public Instruction, ex officio
1897 CHESTER S. LORD M.A. LL.D. – – – Brooklyn
1897 TIMOTHY L. WOODRUFF M.A. Lieutenant-Governor, ex officio
1899 JOHN T. MCDONOUGH LL.B. LL.D. Secretary of State, ex officio
1900 THOMAS A. HENDRICK M.A. LL.D. – – – Rochester
1901 BENJAMIN B. ODELL JR Governor, ex officio
1901 ROBERT C. PRUYN M.A. – – – – – Albany

SECRETARY

Elected by regents

1900 JAMES RUSSELL PARSONS JR M.A.

DIRECTORS OF DEPARTMENTS

1888 MELVIL DEWEY M.A. *State library and Home education*
1890 JAMES RUSSELL PARSONS JR M.A.
Administrative, College and High school dep'ts
1890 FREDERICK J. H. MERRILL Ph.D. *State museum*

University of the State of New York

BULLETIN

OF THE

New York State Museum

FREDERICK J. H. MERRILL *Director*

No. 41 Vol. 8

February 1901

WAMPUM AND SHELL ARTICLES

USED BY THE NEW YORK INDIANS

BY

WILLIAM M. BEAUCHAMP S. T. D.

ALBANY

UNIVERSITY OF THE STATE OF NEW YORK

1901

Collection of Native North American Indian Books, Historical Books, Atlases, plus other important authors and family heirloom books.
As of 12-31-93

Earl Ford McNaughton

CONTENTS

	PAGE
List of authorities on wampum	321
Making wampum	327
Early shell beads	336
Council wampum	337
Abundance of wampum	349
Wampum as money	351
Ornament	356
Discoid beads	365
Massive beads	368
Long beads	369
Runtees	372
Other articles	376
Pendants	376
Rings	377
Masks	377
Pins	377
Knives	378
Gorgets	379
Miscellaneous	381
Wampum-keepers	383
Belts	384

	PAGE
Belts (*continued*)	
Making	384
Reading	388
Lettered	390
Emblematic	391
Underground	403
Disposition	403
Recent	404
Acts with	430
Attachments	431
Abundance	435
Uses of wampum	438
Glass beads	446
Condolence	447
Lack of wampum	455
Color of wampum	455
Tribute	457
Atonement	459
Food and burial	462
Explanation of plates	463
Index	477

Allan — **Allan, *Col.* John.** Military operations in eastern Maine and Nova Scotia with notes and a memoir by Frederick Kidder. Alb. 1867.

Barber — **Barber, J: W. & Howe, Henry.** Historical collections of the state of New Jersey. N. Y. 1844.

Bartram — **Bartram, John.** Observations on the inhabitants, climate, soil, rivers, productions, animals in travels from Pensilvania to Onondago, Oswego and Lake Ontario. Lond. 1751.
Also pub. Geneva N. Y.

Beauchamp — **Beauchamp, W: M.** Hi-a-wat-ha. (*see* Journal of American folk-lore, 1891, 4: 295-306)

Beauchamp. Iroquois — ——— An Iroquois condolence. (*see* Journal of American folk-lore, 1895, 8: 313-16)

Beverley — **Beverley, Robert.** History of Virginia. Lond. 1722.

Boyle — **Boyle, David.** Fourth annual report of the Canadian institute. Toronto 1891.

Bradford — **Bradford, William.** History of the Plymouth plantation. Bost. 1856. (*see* Mass. hist. soc. Collections. 1856. ser. 4. 3:234).

Bruyas — **Bruyas, Jacques.** Radices verborum Iroquaeorum. J. G. Shea. N. Y. 1863.
Radical words of the Mohawk language. Appendix E, 16th annual report of the New York state museum, Albany 1863. Same paging.

Cartier — **Cartier, Jacques.** A short and brief narration of the navigation made by the commandement of the king of France, to the islands of Canada, Hochelaga, Saguenay, and divers others which now are called New France, (*in* Hakluyt's principal navigations) Lond. 1600. (*see* Dawson, Sir J: W. Fossil men and their modern representatives. Lond. 1883. p. 31)

Catlin — **Catlin, George.** Letters and notes on the manners, customs and condition of the North American Indians. Lond. 1842.

Charlevoix **Charlevoix, P. F. X. de.** Journal of a voyage to North America; tr. from the French. Lond. 1761.

Clark **Clark, J. V. H.** Onondaga; or, Reminiscences of earlier and later times. Syracuse 1849.

Colden **Colden, Cadwallader.** History of the five Indian nations of Canada. Lond. 1750.

Converse **Converse,** *Mrs* **Harriet Maxwell.**
Notes accompanying wampum belts, and personal letters to W: M. Beauchamp.

Dawson **Dawson,** *Sir* **J: W.** Fossil men and their modern representatives. Lond. 1883.

De Kay **De Kay, J. E.** Mollusca. (*see* Zoology of New York. Alb. 1843-44)

Denton **Denton, Daniel.** Brief description of New York, a brief relation of the Indians there; a new edition with an introduction and historical notes by Gabriel Furman. N. Y. 1845 (Gowans' bibliotheca Americana, no. 1)

De Schweinitz **De Schweinitz, Edmund.** Life and times of David Zeisberger. Phil. 1870.

Donaldson **Donaldson, Thomas.** The Six Nations of New York. Report of Indians taxed and not taxed. Wash. 1894.

Drake **Drake, S. G.** Biography and history of the Indians of North America. Bost. 1851.
Pub. also as *Book of the Indians*, Bost. 1845.

Fernow **Fernow, Berthold,** *ed.* Records of New Amsterdam from 1653 to 1674. N. Y. 1897.

Frey **Frey, S. L:** Were they mound-builders? (*see* American naturalist, Oct. 1879, 13: 637-44)

Furman **Furman, Gabriel.** Antiquities of Long Island. N. Y. 1875.

Hale **Hale, Horatio.** Iroquois book of rites. Phil. 1883. (Library of aboriginal American literature, no. 2)

Hamy **Hamy,** *Dr* **E. T.** Gallerie Americaine du museé ethnographie du Trocadero; ed. by E. Leroux. Paris 1897.

Hazard — **Hazard, Samuel.** Pennsylvania archives, 1664-1790. ser. 1. Phil. 1852-56.

Heckewelder — **Heckewelder, J: G. E.** History, manners and customs of the Indian nations who once inhabited Pennsylvania. Phil. 1876. (*see* Pa. hist. soc. Memoirs. 1876. v. 12)

Holmes — **Holmes, W. H.** Art in shell of the ancient Americans. (*see* Smithsonian institution—Ethnology, Bureau of. 2d an. rep't. p. 179-305)

Hough — **Hough, F. B.** History of Jefferson county. Alb. 1854.

Hubbard — **Hubbard, William.** Narrative of the Indian wars in New England. Worcester 1801.

Is properly *Narative of the troubles with the Indians in New England.* 1803.

Johnson — **Johnson,** *Sir* **William.** Letter to Arthur Lee. (*see* Documentary history of the state of New York. 4: 269-73)

Jones — **Jones, Peter.** History of the Ojebway Indians. Lond. 1861.

Jordan — **Jordan, J. W.** Some account of the Indian council held in the clergy house, Philadelphia 1749. (*see* Moravian. 1898)

Josselyn — **Josselyn, John.** Account of two voyages to New England. Bost. 1865.

Kalm — **Kalm, Peter.** Travels into North America; tr. by J: R. Foster. Lond. 1772.

Krehbiel — **Krehbiel, H: E.** Articles on wampum (*see* New York tribune, July 1897)

Lafitau — **Lafitau, J. F.** Moeurs des sauvages Ameriquains. Paris 1724.

La Hontan — **La Hontan, A. L. de D. de** *baron.* New voyages to North America. Lond. 1735.

Leclercq — **Leclercq, Chrétien.** First establishment of the faith in New France; tr. by J. G. Shea. N. Y. 1881.

Lescarbot — **Lescarbot, Marc.** Histoire de la Nouvelle. France. Paris 1609.

Long **Long, John.** Voyages and travels of an Indian interpreter. Lond. 1791.

Loskiel **Loskiel, G: H:** History of the missions of the united brethren among the Indians in North America; tr. from the German by C. I. La Trobe. Lond. 1794.

Lossing **Lossing, B. J:** Pictorial field-book of the revolution. N. Y. 1860.

Lothrop **Lothrop, S: K.** Life of Samuel Kirkland. (*see* Library of American biography. 1864. v. 15)

Margry **Margry, Pierre.** Découvertes et établissements des Francais. Paris 1875-86.

Quoted in Garrick Mallery's *Picture writing of the American Indians*, 10th annual report of bureau of ethnology of Smithsonian institution, p. 229. Wash. 1893.

Marshe **Marshe, Witham.** Journal of the treaty held with the Six Nations by the commissioners of Maryland and other provinces June 1744. (*see* Mass. hist. soc. Collections. 1801. ser. 1. 7: 171-201)

Montanus **Montanus, Arnoldus.** Description of New Netherland. (*see* Documentary history of the state of New York. 4: 75-83)

Morgan **Morgan, L. H.** Fabrics, inventions, implements and utensils of the Iroquois. (*see* New York state museum report. 1852. p. 67-117)

Morgan. Iroquois ———— League of the Ho-de-no-sau-nee or Iroquois. Rochester 1851.

Morton **Morton, Thomas.** Historical tracts. 2: 29.

Quoted from *Art in shell of the ancient Americans* by W. H. Holmes.

Munsell **Munsell, Joel.** Annals of Albany. v. 2. Alb. 1850.

O'Callaghan **O'Callaghan, E. B.** *ed.* Documentary history of the state of New York. Alb. 1849-51.

O'Callaghan. Colonial hist. ———— Documents relative to the colonial history of the state of New York. Alb. 1853-87.

O'Callaghan. New Netherland ———— History of New Netherland. N. Y. 1846-48.

O'Callaghan. New Netherland. Laws **O'Callaghan, E. B.** *ed.* Laws and ordinances of New Netherland, 1638-1674. Albany 1868.

Laws

Paige **Paige, E. W.** Readings of the wampums of the Five Nations and the Six Nations, by Te-hes-ha (Daniel La Fort) and the Reverend Thomas La Fort, at Onondaga Castle, 19 July, 1898, and 1 Aug. 1898. (Appellate div. sup. court 4th dep't. Onondaga nation *et al.* vs J. B. Thacher. Papers on appeal, p. 56)

Penn. **Pennsylvania archives,** 1664-1790; ed. by Samuel Hazard. ser. 1. Phil. 1852-56.

Penn. mag. **Pennsylvania** magazine of history and biography, notes and queries. Phil. 1890.

Penn. Minutes **Pennsylvania,** minutes of the provincial council of 1682-1790. Phil. 1852-60.
Lettered *Colonial records.*

Pub. rec. Ct. **Public records** of Connecticut; ed. by J. Hammond Trumbull. Hartford 1850-90.

Rec. East Hampton **Records** of the town of East Hampton. Sag Harbor 1887.

Reichel **Reichel, W: C.** Memorials of the Moravian church. Phil. 1870.

Relation **Relations** des Jésuites. Québec 1858.
Burrow's fine edition is partially quoted, but more use is made of the Quebec edition, 1858.

Sagard **Sagard, T. G. Le.** Grand voyage du pays des Hurons. Paris 1865.

Schoolcraft **Schoolcraft, H. R.** Notes on the Iroquois. N. Y. 1846.

Schoonmaker **Schoonmaker, Marius.** History of Kingston. N. Y. 1888.

Smith **Smith,** *Mrs* **E. A. (Platt).** Myths of the Iroquois. (*see* Smithsonian institution—Ethnology, Bureau of. 2d an. rep't. p. 47-116)

Stone **Stone, W: L.** Life and times of Sagoyewatha, or Red Jacket. Alb. 1866.

Stone. Brant — **Stone, W: L.** Life of Joseph Brant—Thayendanegea. N. Y. 1838.

Thatcher — **Thatcher, B. B.** Indian biography. N. Y. 1834.

Thompson — **Thompson, B: F.** History of Long Island. N. Y. 1839.

Tooker — **Tooker, W. W.** Long Island Indian names in *Brooklyn eagle almanac.* 1894.
Also personal letters to W: M. Beauchamp.

U. S. census — **United States** census report of 1890, on Indians taxed and Indians not taxed. Wash. 1894.
Report on the Six Nations of New York, p. 447-98.
Delawares in the Indian Territory, p. 298.

Van der Donck — **Van der Donck, Adriaen.** Description of the New Netherlands. (*see* N. Y. hist. soc. Collections. 1841. ser. 2. 1:206)

Williams — **Williams, Roger.** Key into the language of America; ed. by J. H. Trumbull. (*see* Narragansett club. Publications. 1866-74. v. 1)

Winthrop — **Winthrop, John.** History of New England from 1630 to 1649; ed. by James Savage. Bost. 1825.
The first title was a *Journal of the transactions, etc.*

Winthrop. Letter — ———— Letter from William Pynchon to Stephen Day, 1644. (*see* Mass. hist. soc. Collections. ser. 4. 6:377)

Wood — **Wood, William.** New England's prospect. Bost. 1865. (Prince soc. Publications)
Printed in 1634.

Zeisberger — **Zeisberger, David.** Indian dictionary. ed. by E. N. Horsford. Camb. Mass. 1887.

WAMPUM AND SHELL ARTICLES

Making wampum

The use of shells for ornaments and money is so well known that no discussion of the subject is required here. The aborigines of North America had the common primitive taste, but could not fully gratify it till the white man came. Some shells they were able to work in a simple way, but few of these have been preserved. Under some circumstances they kept well, but they could not withstand much exposure. Pearly shells resisted best, while those in which lime was the principal element soon lost their polish, and often their form.

The aborigines of the Pacific states had the Dentalium for money and ornament, but used the iridescent Haliotis to a great extent. The Indians of the plains depended mainly on the eastern coast for what they used. A few northern shells were available, but the material for a large proportion of New York articles came from the south Atlantic coast and the Gulf of Mexico. These were most in use in the historic period. Few from the southern coast which are over 300 years old have been found here. Except as beads, shells were little used as ornaments in New York before that time. Yet this state was celebrated for the abundance of its wampum 250 years ago, partly from the stimulus given to its manufacture by the whites, and partly from the numbers and large size of one mollusk, by which it was supplied.

Venus mercenaria is abundant from Cape Cod to Florida, but is rare northward from the former point till the southern shore of the Gulf of St Lawrence is reached. It is the round clam or quahog. It has been objected that the purple part of this shell is not thick enough to make the dark beads. This is true of the clams sent into the interior for food, because the younger mollusks are chosen instead of those old and tough. To correct this impression, W. W. Tooker sent the writer older shells, 4 inches long. Fig. 1 shows one of

these, with the surface distribution of the purple part overlying the white as a rule. Fig. 2 is a section of the posterior part of the shell, where the purple is ⅜ of an inch thick. At the anterior end it is deposited in bands of purple and white. Fig. 3 is a section of the central basal margin, where the purple is too thin for a good quality of beads. This part was occasionally used, and the shell was cut so as to show the lines of growth. De Kay gives the extreme length as 4.5 inches.

Mr Tooker also furnished some antique columellae from near Sag Harbor, divested of the outer whorls, and thus prepared to be worked into pins or long and short beads. Fig. 4, 5, 6 show three of these, apparently of small shells of Sycotypus canaliculatus. This occurs from Cape Cod to Florida, and is readily recognized by the canal around the spire. Fig. 7 is a young shell of Fulgur carica, often used, and having the same range. It is given here to show the opposite character of Busycon perversum, which was commonly used in the south, not reaching northern shores. The peculiar feature of this latter shell is in having the whorls revolve in the opposite direction to most species, as may be seen. Fig. 8 is from a small specimen in the writer's cabinet. De Kay gave two figures of this shell, revolving in the contrary direction to the typical form, and this without comment. He called it Pyrula spicata, of Lamarck, and said: "I have met with this shell in the collections of Dr Budd and others, but can not find it authenticated as a New York species."—*De Kay*, p. 142. It is not included in the list of invertebrates of Vineyard sound, nor has the writer ever found it on the coast of New York. It is proper to make this statement in correction of what W. H. Holmes has said of locality. "The Busycon perversum has been more extensively used than any other shell, and consequently its distribution in one form or other is very wide. It is obtained along the Atlantic and Gulf coasts from Massachusetts to Mexico, and within the United States it is artificially distributed over the greater part of the Atlantic slope."—*Holmes*, p. 192. Attention is called to its range now, because it is probable that almost all articles made from this north of Maryland are of quite recent use.

The small white council wampum was often made of a smaller gasteropod, or even of the white parts of some bivalves. Fig. 9 is a full size drawing of Buccinum undatum, which is a northern shell, but is found to some extent at Montauk point and elsewhere about Long Island. Beads were made of this. Littorina îrrorata is still rarer along the New York coast, but one perforated specimen has been found at the Onondaga fort of 1600, which is shown in fig. 19. Some others will be mentioned later. For ornamental purposes the larger shells were preferred. Mr Tooker says: "Some writers illustrate the basal whorl as being the part from which the wampum was made, but this is contrary to the early writers, who state that it was made 'from the inmost wreaths, stem or stock, when all the shell is broken off.' We find these stems in great abundance about the sites of former wigwams, in shell heaps and other localities." Reference has been made to some figures of these. With all due deference to early writers, it must be confessed that some wrote what they heard rather than what they saw, often quoting largely without the slightest credit or personal knowledge.

At first beads, long or short, were made from the columellae, or pillars of shells, because they could be easily ground before cutting to the desired length, no slight advantage. With better appliances this was less necessary. It is clear, however, that no New York shell was large enough for some beads found here, but after the Iroquois became supreme in power southern material of a massive nature was easily obtained. With the increase of ornaments other parts of the shell became available. The whorls naturally afforded the curves found in gorgets and other things, and it is probable that these articles were first seen by the Iroquois in their southern wars in the 17th century. Sailors brought some materials, and a few articles of Haliotis shell have been found. The gradual increase of shell ornaments may easily be traced in any center of Iroquois occupation, and the use of metallic tools in their production.

In fact these tools changed everything, though there were other reasons for the sudden increase of wampum in the 17th century.

Mr Tooker makes some interesting remarks on the *mucksuck*, or awl blades of Roger Williams. That writer said: "Before they had awl blades from Europe they made shift to bore this their shell money with stones." Mr Tooker comments on this. "Among the articles given for East Hampton town in April 1648, to the Montauk Indians were 'one hundred *muxes*.' In the Indian deed for Huntington, L. I., dated 1653, are mentioned '30 *muxes*, 30 needles.' In the Indian deed for Mastic Neck, Brookhaven, L. I., dated 1657, among the items paid to Wyandance, sachem of Montauk, were 'forty needles and forty *muxes*.' So it will be seen that they were articles highly desired by the natives."

It is quite probable that these awls were made with a view to the Indian trade, and thus acquired a name common among them. If specially adapted for this work, their value would be proportionally increased in making and selling, and the name would distinguish them. Still the work would be slow and laborious, and not adapted to the small cylinders of the council wampum, making it probable that the Dutch soon produced all of this variety, leaving to the Indians the larger and more showy kinds.

Thompson says, in his *History of Long Island*, p. 61, that "Hazard, in his collection of state papers, mentions that the Narragansetts procured many shells from Long Island, out of which they manufactured Indian money, and that they likewise frequently compelled the natives of the island to pay them large tribute in money." In John Winthrop's *Journal*, 1:112, is mentioned the return of his bark, *Blessing*, Oct. 2, 1633, from Long Island. "There they had store of the best wampum peak, both white and blue." It seems probable that not only was the material unusually fine there, but the Indian makers obtained iron tools at a very early day.

A quotation from Van der Donck, in 1653, will show how much faster work the Indians themselves did when furnished with these tools. They "drill a hole through every piece, and string the same on strings, and afterwards sell their strings in that manner. . . Many thousand strings are exchanged every year near the seashore, where the wampum is only made, and where the peltries are brought for sale." Though the number of beads and strings is indefinite,

it is implied that it was very large. From slight experiments in drilling the writer finds it less difficult than is sometimes represented.

Roger Williams gave the words, *puckwhéganash* and *mucksuck* for the awl blades already mentioned. It may be observed, also, that the word *muges* is used in the printed record of the deed of East Hampton, in 1648, instead of *muxes*, as given by Mr Tooker. In the *Documentary history of the state of New York* it is *mucxs*, which is nearer his rendering. In the same deed the Indians "reserve libertie to fish in all convenient places, for Shells to make wampum."—*Rec. East Hampton*, 1 :3. Evidently the trade was highly valued by them.

Unio beads and ornaments are very rare, considering how fine and abundant was this material, and but two other genera of fresh-water shells appear in use. Some marine species will be mentioned in treating of articles, but Melampus bidentatus was occasionally used in early and recent times. It is neither showy nor durable, but is of the desired form, requiring merely perforation.

The manufacture of articles of shell was at first mainly on or near the seashore. Unio beads are very rarely found in the interior of New York, and the writer has noticed a few perforated Goniobasis and Melantho shells not otherwise worked. All these are fresh-water species, and the last may have been earliest in use. This perforated green shell has been found sparingly in Erie and Jefferson counties, and may occur elsewhere. Fig. 17 and 18 show some from the former county, perforated near the lip, as in all other cases. Goniobasis is a smaller and more slender shell, and perforated specimens of two species occur from Madison county westward. Schoolcraft described one as a Marginella. Fig. 25 shows some from the fort west of Cazenovia. Quite a number have been found there, and they are about 300 years old. They do not occur naturally within 20 miles of the spot. A few have been found in the country of the Senecas, mostly from recent sites in Livingston county, and they seem to be the fresh-water shell beads of Seneca tradition.

Long shell beads are sometimes found in the interior, possibly

of early date. The finest are from the east side of Cayuga lake, and they vary from nearly 7 inches in length to those quite short. Fig. 121 represents one of these. Small perforated seashells are found on recent sites, and were used as beads. Fig. 20, 22, 26 and 30 show some out of several varieties. Fig. 19 is Littorina irrorata, a Long Island shell, found at the fort west of Cazenovia. It is rare north of Maryland.

Gardiners bay and the east end of Long Island were the original seat of the wampum trade in New York, less ancient than has been supposed, and thence it reached the New England coast in recent times. An early writer said that the Narragansetts "were the most curious coiners of the wampumpeag, and supplied the other nations with many pendants and bracelets." Roger Williams's account is quoted elsewhere. Adriaen Van der Donck said that the black wampum was prepared from conch shells cast ashore twice a year. The Indians preserved the pillars of these, ground and drilled them. He erred in the species. Daniel Denton wrote a *Brief description of New York* in 1670, which was reprinted in 1845. A note in this says that the best wampum was made of the hearts of the common hard clam on Long Island, and was sent to the western Indians for money and council purposes. "The Indians broke off about half an inch of the purple color of the inside, and converted it into beads. These, before the introduction of awls and threads, were bored with sharp stones, and strung upon sinews of animals, and when interwoven to the breadth of the hand, more or less, were called a belt of seawant or wampum. A black bead, of the size of a large straw, about half an inch long, bored lengthwise and well polished, was the gold of the Indians and always esteemed of twice the value of the white. . . Seawant was also sometimes made from the common oyster shell, and both kinds were made from the hard clam shell.—*Denton*, p. 41-42

The writer often finds the white beads made from the columella of small spiral shells. Roger Williams said of the Indians: "Most on the Sea side make Money, and Store up shells in Summer against Winter, whereof to make their money."

In his *History of Long Island*, Thompson says: "The immense quantity that was manufactured accounts for the fact that, in the

most extensive shell banks left by the Indians, it is rare to find a whole shell, all having been broken in the process of making wampum. And it is not unlikely that many of the largest heaps of shells still existing are the remains of a wampum manufactory." In an address at Brooklyn in 1892, Mr Tooker did not take so extreme a view. Of the shell heaps he said: "They are all true kitchen middens, and in them can be found nearly everything not perishable that was used by the red men. . . Many of the shells found bear marks of the wampum maker. The spirals of the periwinkle (Pyrula canaliculata) are very common, this part of the shell having been used to produce the white beads or true wampum. I have found these shells buried in a mound by themselves in several localities, to the extent of a bushel or more, this being done in order that the fish might decay and leave the shells more easy to work."

Loskiel has some notes on early wampum.

Before the Europeans came to North America the Indians used to make their strings of wampum chiefly of small pieces of wood of equal size, stained with black or white. Few were made of mussels, which were esteemed very valuable and difficult to make; for, not having proper tools, they spent much time in finishing them, and yet their work had a clumsy appearance. But the Europeans soon contrived to make strings of wampum, both neat and elegant, in abundance. These they bartered with the Indians for other goods, and found this traffic very advantageous. The Indians immediately gave up the use of the old wooden substitutes for wampum and procured those made of mussels, which, though fallen in price, were always accounted valuable. . . Formerly they used to give sanction to their treaties by delivering a wing of some large bird, and this custom still prevails among the more western nations in transacting business with the Delawares. But the Delawares themselves, the Iroquois, and those nations in league with them, are now sufficiently provided with handsome and well wrought strings and belts of wampum.—*Loskiel*, p. 26

He gave a good account of its making and use.

The most elaborate account of its recent manufacture may be found in Barber and Howe's *Historical collections of the state of New Jersey*, under the head of Bergen county, published in 1844.

Wampum, or Indian money, is to the present day made in this county and sold to the Indian traders of the far west. It

has been manufactured by the females in this region from very early times for the Indians. . . The wampum is made from the thick and blue parts of sea clamshells. The process is simple, but requires a skill only attained by long practice. The intense hardness and brittleness of the material render it impossible to produce the article by machinery alone. It is done by wearing and grinding the shell. The first process is to split off the thin part with a light sharp hammer. Then it is clamped in the sawed crevice of a slender stick, held in an eight sided figure of about an inch in length and nearly half an inch in diameter, when it is ready for boring. The shell then is inserted into another piece of wood sawed similarly to that above, but fastened firmly to a bench of the size of a common stand. One part of the wood projects over the bench, at the end of which hangs a weight, causing the sawed orifice to close firmly upon the shell inserted on its under side, and to hold it firmly, as in a vice, ready for drilling. The drill is made from an untempered handsaw. The operator grinds the drill to a proper shape, and tempers it in the flame of a candle. A rude ring, with a groove on its circumference, is put on it, around which the operator (seated in front of the fastened shell) curls the string of a common hand-bow. The boring commences by nicely adjusting the point of the drill to the center of the shell, while the other end is braced against a steel plate on the breast of the operator. About every other sweep of the bow the drill is dexterously drawn out, cleaned of the shelly particles by the thumb and finger, above which drops of water from a vessel fall down and cool the drill, which is still kept revolving by the use of the bow with the other hand, the same as though it were in the shell. This operation of boring is the most difficult of all, the peculiar motion of the drill rendering it hard for the breast. . . Peculiar care is observed lest the shell should burst from heat caused by friction. When bored half way the wampum is reversed and the same operation repeated. The next process is the finishing. A wire about 12 inches long is fastened at one end to a bench. Under and parallel to this wire is a grindstone fluted on its circumference, hung a little out of the center so as to be turned by a treadle moved with the feet. The left hand grasps the end of the wire, on which are strung the wampum, and as it were wraps the beads around the hollow or fluted circumference of the grindstone. While the grindstone is revolving the beads are held down on to it, and turned round by a flat piece of wood held in the right hand, and by the grinding soon become round and smooth. They are then strung on hempen strings about a foot in length. From five to 10 strings are a day's work for a female. They are sold to the country merchants for 12½ cents a string, always command cash, and constitute the support of many poor and worthy families.—*Barber*, p. 72-73

It will be observed that these beads are about four times the length of the belt wampum, but the process is the same. The steel drill made a nearly uniform hole; that of the early Indian tapered to the center from each end, his tools being simpler. Other briefer accounts might be quoted. In 1831 several bushels were brought from Babylon on Long Island for western traders, and in 1850 the best for this purpose was still manufactured there. In his *Pictorial field-book of the revolution*, 1:302, B. J. Lossing said: "A considerable quantity of wampum is manufactured at the present time in Bergen county, New Jersey." This continued for a score of years longer. The writer has observed that a great deal of the purple belt wampum is quite angular. Its manufacture by the whites has been noted by many, and several families in Albany long obtained a living by it.

Catlin made some remarks on wampum which may not be entirely correct. He said it was made "by the Indians from varicolored shells which they get on the shores of fresh-water streams, and file or cut into bits of half an inch or an inch in length, and perforate (giving to them the shape of pieces of broken pipestems), which they string on deer's sinews, and wear on their necks in profusion, or weave them ingeniously into warbelts for the waist." His farther words are of interest:

It is a remarkable fact, and worthy of observation in this place, that after I passed the Mississippi I saw but very little wampum used; and on ascending the Missouri (1832) I do not recollect to have seen it worn at all by the upper Missouri Indians, although the same materials for its manufacture are found in abundance through those regions. I met with but very few strings of it amongst the Missouri Sioux, and nothing of it amongst the tribes north and west of them. Below the Sioux, and along the whole of our western frontier, the different tribes are found loaded and beautifully ornamented with it, which they can now afford to do, for they consider it of little value, as the fur traders have ingeniously introduced a spurious imitation of it, manufactured by steam or otherwise, of porcelain or some composition closely resembling it, with which they have flooded the whole Indian country, and sold at so reduced a price as to cheapen and consequently destroy the value and meaning of the original wampum, a string of which can now but very rarely be found in any part of the country.—*Catlin*, 1:222-23

At that very time true wampum was largely made on Long Island and in New Jersey for the western trade. It was counterfeited at a very early day. His statement about fresh-water shell beads has little foundation.

A very early account of North American shell beads will be found in Lescarbot's *Histoire de la Nouvelle-France*, 1609, v. 6, ch. 12, in which he speaks of the Micmacs. He says:

The Brazilians, Floridians and Armouchiquois make carcanets and bracelets (called *bou-re* in Brazil and *matachiaz* by our Indians), from the shells of those great seashells which are called *vignols* and are like unto snails, which they break in a thousand pieces and gather up, then polish them upon a grindstone, so that they make them very small, and when they have pierced them they make beads, like those which we call porcelain. Among these beads mingle alternately other beads, as black as the others I have spoken of are white, made of jet or of certain hard or black woods which resemble it, which they polish and make as small as they wish, and this has a good grace. . . . These collars, scarfs and bracelets of *vignols*, or porcelain, are more valuable than pearls (notwithstanding no one will believe me in this), for they esteem them more than pearl, gold or silver. As with us, so in this land do the women deck themselves with such things, and will make a dozen turns of it around the neck, hanging upon the breast, and around the wrists and below the elbow. They also hang long chains in their ears, which hang down even as low as their shoulders.

Large shells were not found so far north, and they prized those of the Armouchiquois, or Kennebec Indians, but on account of the war the French supplied "little tubes of glass mixed with tin or lead, which are traded to them by the fathom measure for want of an ell measure."

Early shell beads

In S. L. Frey's article entitled "Were they mound-builders?" *American naturalist*, 1879, p. 637-44, are good descriptions of the shell articles he found in the stone graves at Palatine Bridge. In the first examined he found "a seashell, somewhat modified for a drinking vessel, its longest diameter being 4 inches." Fig. 43 is from his drawing of this cup. This grave had a stone tube. In another, containing two tubes, he found a necklace of shell and copper beads. "Many of the shell beads were also stained by copper;

those so colored retaining their original polish, being hard and glossy like ivory, while those not so stained were brittle, many of them falling into a white, laminated powder. The shell beads were 59 in number, besides those that were too badly decayed to handle, and were from half an inch to one and three quarter inches in length, and averaged about half an inch in diameter. They were of that kind so fully described by the early writers, made from the columellae of large seashells and rubbed and ground smooth with great labor, and afterward drilled through their longest diameter with greater labor still. . . The drilling has been done in most cases from each end, the holes meeting in the center. In some of the shorter ones, however, the perforations were made from one end, being of uniform size throughout. The spiral grooves, where the whorls of the shell wound round the hard central column, can be seen in all of them."

In another grave, lined with flat stones, he found "little copper tubes and small seashells about half an inch long, with a hole drilled in the large end. The only way that these latter can be strung is with a 'waxed end' tipped with a bristle, such as shoemakers use. This follows the whorls of the shell." The writer makes full quotations here because these may be the oldest shell beads yet found in New York. They were in peculiar graves and associated with articles very different from those of more recent times, though themselves of precisely the same character as later beads. Mr Frey is so well known as a careful, experienced and intelligent observer, that it is always a pleasure to quote from him. In a recent letter to the writer he refers to these articles. "I found at the same time about 75 beads from half an inch long to 2 inches. They were in fine condition, having been colored and preserved by the oxidation of some copper beads in contact." Fig. 111 is of one of the larger shell beads.

Council wampum

In distinguishing the modern council wampum from that which preceded it, and which could not have been used for the well-known and historic wampum belts, it may be well to speak of the origin of the name. It is not one originally used by the Huron-Iroquois,

nor could they even pronounce it. At first, too, it referred to the color of the shell beads, all varieties of which it at last embraced. Roger Williams said, in speaking of the aboriginal New England money: "Their white they call *Wompam* (which signifies white); their black *Suckauhock* (*Sácki*, signifying blacke)." Again he said that, after eating the clam called the hen, "they breake out of the shell, about halfe an inch of a blacke part of it, of which they make their *Suckaúhock*, or black money." Of the *Mcteaûhock*, or periwinkle, "they make their *Wômpam* or white money, of halfe the value of their *Suckáwhock*, or blacke money." Wood says in his *New England's prospect*, of the industrious Narragansetts, "These men are the most curious minters of their *Wampompeage* and *Mowhakes*, which they forme out of the inmost wreaths of Periwinkle-shels. The Northerne, Easterne, and Westerne *Indians* fetch all their Coyne from these Southerne Mintmasters. From hence they have most of their curious Pendants & Bracelets." The New York colonists called it both sewant and peag. Holmes applies this latter name to the wampum of Virginia, but it is frequent in the colonial records of New York. Long Island has often been termed *Sewanhacky*, or the Sewant country. Its other aboriginal name of *Mattauwack*, variously spelled, according to W. W. Tooker comes from *Meht-anaw-ack*, or Land of periwinkles.

While shell beads were probably of early manufacture along the seashore, being made and used by the Algonquins, they were very little known in the interior and west of the Hudson before the 17th century. Accordingly we find few traditions of their origin among the river and shore Indians, while their use among the Iroquois was so sudden and conspicuous an event as to make a great and lasting impression. According to them the origin of wampum was coeval with that of their league. Hiawatha decreed and regulated its use. As far as they were concerned this is nearly the truth. The most earnest antiquarians have failed to find more than the merest trace of shell beads on any Iroquois site which can be dated before the year 1600, and have found none which are like the beads used in belts. It may be of interest to know what some of the Iroquois legends are, and some use may be made of them

in arriving at sound conclusions, even when told as simple tales of the forest.

In one story related by Mrs E. A. Smith, Hiawatha does not appear, but there is an obscure connection through the wampum bird. A man discovered this in the woods and hastened home with the news. The head chief offered his beautiful daughter to any one who would take the bird, dead or alive, and many were the arrows winged with this hope. Sometimes the bird was hit and off would fly a shower of wampum, speedily renewed on the strange visitor. No one could bring it to the ground. The best warriors despaired of success. Then came a little boy from an unfriendly tribe and wished to try his luck. This the warriors would not allow, and even threatened his life. The chief interfered. When warriors failed, a boy need not be feared, and his bow was bent. The swift arrow flew, the wonderful bird fell, and its plumage enriched the people. With the marriage came peace to two nations, and the boy decreed that wampum should bring and bind peace, and atone for blood.—*Smith*, p. 78. The feature to which attention is directed is that the first Iroquois wampum was of quills of some kind, according to this and some other legends. David Boyle gives this story in a larger form in his *Archaeological report* for 1899.

Another story, briefly related by Mrs Smith, is that Hiawatha came to a little lake while on his way to the Mohawks. While he was thinking how he should cross it, a flock of ducks lit on the water. When they flew off the lake was dry, and the bottom filled with shells. Of these the great chief made the first wampum for the new confederacy.—*Smith*, p. 64. This story is variously told, and some Onondagas now think the dry basin of one of the Tully lakes was the scene of this wonderful event. White and dead shells are so abundant beside all lakes and ponds that the ducks were hardly needed; and no fresh-water shells in those of central New York could have been wrought into wampum belts. The story is in line with Mr Morgan's statement, received from the Senecas, that the first Iroquois wampum was of fresh-water shells. The speedy introduction of beads probably prevented its general use. Horatio Hale mentions this story in his *Iroquois book of rites*, but leaves out the ducks.

Mr Morgan's statement may be quoted in full:

The primitive wampum of the Iroquois consisted of strings of a small fresh-water spiral shell, called in the Seneca dialect, *Otc-ko-a*, the name of which has been bestowed upon the modern wampum. When Daganoweda, the founder of the league, had perfected its organic provisions, he produced several strings of this ancient wampum of his own arranging, and taught them its use in recording the provisions of the compact, by which the several nations were united into one people. At a subsequent day the wampum in present use was introduced by the Dutch, who in the manufactured shell bead offered an acceptable substitute for the less convenient spiral shell.—*Morgan*, p. 71

It will be seen that these stories do not mention belts, and that Mr Morgan thought no existing belts antedated the Dutch settlement and trade. Dr Daniel G. Brinton was of the same opinion.

Another Hiawatha story was very briefly told by Mr Hale, but was given to the writer in full by the Rev. Albert Cusick, an Onondaga of great intelligence, and his own and Mr Hale's interpreter. When the wise and good chief determined to try to stop the constant Indian wars, he went first to the Mohawks. Not far from one of their villages he built a fire, and this was soon reported to the chief. He sent young men to see whether this betokened friend or foe. They crept quietly near and saw through the bushes an old man sitting by the fire, intent on stringing short eagle quills. He did not look up, and they returned and reported what they had seen. The chief sent them back to call the old man to a council. They approached him openly, but, when they gave their message, he neither looked up nor answered, and continued stringing the quills as before. They repeated the chief's words again and again, and, when they spoke the third time, he raised his head, holding up a string of quills and said, "When your chief would have me come to a council, he must send me a string like this." The quills were of the black eagle, a mythic bird that soars very high and is rarely seen. This wampum bird Hiawatha could call down at will. Such quills the Mohawk chief could not get, but he thought others might do. With those of the partridge he made a string and sent it to the old man. One story says he used colored wood. When Hiawatha came to the council, he first of all told them how

to make and use wampum. Then he showed how they might unite the hostile Iroquois nations and stop their frequent wars. The Mohawks were pleased with the plan, and went with him on his mission of peace. The usual Onondaga tradition is that their first wampum was made of porcupine quills.—*Beauchamp*, p. 295-305

It would be pleasant to follow Hiawatha and his friends to the several nations, but their adventures have nothing farther to do with wampum. Mr Hale maintained that his name had much in keeping, defining it as "He who seeks the wampum belt," and his words may be quoted from the *Iroquois book of rites.*

This name, which as Hiawatha is now familiar to us as a household word, is rendered "He who seeks the wampum belt." Chief George Johnson thought it was derived from *oyonwa*, wampum belt, and *ratichwatha*, to look for something, or rather to seem to seek something which we know where to find. M. Cuoq refers the latter part of the word to the word *katha*, to make. The termination *atha* is, in this sense, of frequent occurrence in Iroquois compounds. The name would then mean "He who makes the wampum belt," and would account for the story which ascribes to Hiawatha the invention of wampum. The Senecas, in whose language the word *oyonwa* has ceased to exist, have corrupted the name to *Hayowentha*, which they render "He who combs." This form of the name has also produced its legend, which is referred to elsewhere. Hiawatha combed the snakes out of Atotarho's head when he brought that redoubted chief into the confederacy.

The Onondagas call this *Hi-e-wat-ha;* and Mr Hale's Onondaga interpreter told the writer that it could not mean the maker or seeker of the wampum belt. He came nearer to Johnson's interpretation, rendering it. "He who seeks something which he knows where to find." This would well describe the seeker for peace among kindred but alienated nations. Historically Mr Hale's definition will not stand, for it seems there was no true wampum belt in Hiawatha's day, and only strings appear in the stories. Some equivalent article there may have been. Philologically it seems as plain. The Senecas could not have lost the name for a belt, but *Hiawatha* is an Onondaga word, and wampum belt is *otekoa kaswentah* in that dialect. The chief was adopted by the Mohawks, and 200 years ago they called a wampum belt *gai-onni*, sometimes *gawenda*. The interpretation fails.

It will be seen that the writer utterly disbelieves the reputed antiquity of some belts, as any intelligent antiquarian will do on examination. After inspecting many he has yet to see one whose beads were not made with the white man's tools, or to find in New York an Iroquois site over 300 years old on which the peculiar belt wampum appears. One or two beads of about that age he has from the fort west of Cazenovia. It is every way probable that there was an earlier use and manufacture of good wampum with European tools, but it was not made or found in the interior. Vessels passed along the coast at a very early day, and left iron implements here and there, whose value was at once appreciated. Shell beads were more easily made and became more plentiful. They were used for money and ornament, but the Iroquois seem to have first used them in councils when strung. The true wampum belts naturally come later. Not till the beaver trade began to flourish, not till the Iroquois became strong, did they have many of those precious beads which for a long time were the gold and silver, even the pearls and diamonds of most of New York.

While only beads which were generally of a certain size and form could be used in such belts as we are accustomed to see, it is evident that uniformity would not be necessary in strung wampum, or in that used for ornamental purposes. Another kind of belt might be made of beads varying much in size and form. This was an early and rude variety, in which parallel strings of beads were tied together at intervals, forming a broad surface, but not one adapted for any elaborate design. Strings were of less value and importance than belts, but were often as much used. The only rule seems that of supply. Belts were preferred when they could be had, but when lacking strings did just as well. Beaver skins often took their place, and even sticks were used, but the latter were to be replaced with wampum when procured. Frequent instances will be found in our colonial records.

In an official way wampum does not seem to have been used by the Indians on the Atlantic coast. They had vast quantities of it in the 17th century, and its general use as money and for mere

ornament kept it from the honorable position assigned it by the inland nations. The two volumes of Holland documents relating to New York have no details of Indian treaties, and their first record of this official use relates to an instance when some Mohawks came to New Amsterdam in 1674, and presented six belts. In the 13th volume of the *Documents relative to the colonial history of the state of New York*, 13:35 we find an earlier use at Fort Orange, as might have been expected. It was largely used there, but in 1654 the Mohawks could already get more wampum for their beaver from the English than the Dutch. In 1657 the Mohawks gave the Dutch three wampum strings, worth respectively in florins 16.12, 16.9, and 13.10.—*O'Callaghan. Colonial hist.*, 13:72. Wampum belts were used there in January 1661.—*O'Callaghan. Colonial hist.*, 13:91. In early official use Canada, New York and Pennsylvania stand almost alone. The Huron-Iroquois family set the fashion, affecting those around. Less formally some Canadian Algonquins used wampum ceremonially, as in the raising of chiefs. The custom gained ground everywhere in historic times. Schoolcraft says the last belt of wampum was made to be used at a great peace treaty at Prairie du Chien in 1825, by the United States commissioners, Gen. William Clark and Gen. Lewis Cass. There are, however, several reputed Black Hawk belts.

As the supply of wampum was from the New England and New York coast, it was never so abundant in Canada, but among the Hurons it usually was arranged in collars or belts. Many of these were private property and of great value, though small. In 1636 a young Huron lost a belt of 400 beads and a beaver robe at the game of straws. In despair and fearing his relatives he hung himself. The following year the Ancients brought the Jesuits 2400 wampum beads which they had collected in the town. Some years before they had robbed Étienne Brulé of this amount, and they laid their misfortunes to this. There are other references to this strung wampum among the Hurons, but not such as indicate their ceremonial use of it in their own land.

In private life wampum became abundant while the beaver trade flourished. In 1656 some Onondaga warriors returned from the

Erie war during the *Honnonouaroia* or dream feast. They brought a message from Taronhiaouagui the Holder of the Heavens, of a curious nature. One requisition was 10 beads from each cabin and a belt 10 rows wide. The Onondagas did all that was asked. That year in the same town, "3000 grains of porcelain having been lost they consulted a diviner, who masked the face and hid the eyes to see more clearly that which they told him. He ran through the streets, followed by the populace, and, having run well, he went straight to the foot of a tree, where he found 2000 grains. He retained the third thousand to pay for his trouble."

Father Jogues sent 2000 beads to Onondaga in 1646, with an official message, and these must have been strung. Brébeuf 10 years before this gave 1200 beads in the Huron council, because all important speeches required presents, and this may be as far back as official strings appear. Then came three strings from the Mohawks in 1657. The Maryland and Virginia commissioners gave the Senecas a hank of sewant in 1682 with their propositions, and to the other four nations the same. They responded with beaver skins and belts. The custom grew with the English, and the Iroquois followed their lead. The Christian Mohawks gave three fathoms of wampum in 1691, and the whole nation did the same soon after. There was economy in this when the supply of wampum ran low in the last years of that century. Dekanissora gave a bunch of 48 hands of black and white wampum in 1699.

After that the use of strings for messages and councils became frequent. In Pennsylvania in 1707, Harry the interpreter laid "upon the board Six loose strings of white Wampum for his Credentials" from the queen and principal men of Conestoga.—*Penn. Minutes*, 2:403. Similar proof is required yet. Strings often replaced belts. At Onondaga in 1713, "the sachems called all together by order of the Five Nations, and spoke with three strings in their loftiest style." Wampum in hand they often speak yet. In 1756 the French sent a string of wampum to Onondaga to condole some losses. On strings of beads deaths are still condoled. In 1793 the Five Nations were called to a council of the Ohio Indians "by four double strings of black and white wampum." Color and number are yet of importance.

In William C. Reichel's *Memorials of the Moravian church*, p. 32, is an account of the string of wampum given to Count Zinzendorf. A note says:

This string of wampum was carefully preserved for the use of the brethren in their subsequent dealings with the Six Nations. On his return to Europe the count handed it over to Spangenberg, who gave the following receipt, written in Lamb's Inn (Broad Oaks), county of Essex, England, March 10, 1743: "This is to certify that Brother Ludwig has entrusted to me the token of a covenant ratified between him and the Five Nations or Iroquois, (which kind of token the Indians call fathom or belt of wampum) consisting of 186 beads,—given him by said Iroquois on the 3d day of August, 1742, on his return from the Indian country,—this, I say, is to certify that he has entrusted it personally, and in the presence of sundry eye-witnesses, to my safe keeping and for judicious use; which I desire hereby to testify by my own name in writing, with the promise not to give it into other hands, unless otherwise ordered.

AUGUSTUS S. SPANGENBERG.

De Schweinitz, in the *Life and times of David Zeisberger*, says of this wampum: "Spangenberg brought it back to this country, and it was often employed in subsequent negotiations with the Iroquois." This seems probable but is not very clear. Bishop Spangenberg does not refer to it in the journal of his visit to Onondaga in 1745, nor is it mentioned when Cammerhoff was there two years later. Other strings were then employed.

The Oneida chief, Abram Hill, gave the writer some wampum in 1878, with explanations of much that he had. Most of the large collection of strings and loose wampum was his own. There were no belts, nor were these often used in recent years on public occasions, many writers to the contrary notwithstanding. Most of his wampum was the black or purple, the white being now quite rare. Many of the strings were over a foot long, and some double that length. It may be doubted whether his arrangement was that invariably used, but the notes are given as taken at the time.

Six strings of purple wampum represented the Six Nations. These were united at one end, and the free ends were decorated with

tufts of bright merino without significance. When these strings were laid in a circle on a table, the council was opened. It was adjourned by taking them up. In this way a religious council was opened and closed at Onondaga in 1894, but not with the same wampum. The Mohawks, Onondagas and Senecas are elder brothers, and their special bunches for other purposes differed from those of the younger brothers, the Oneidas, Cayugas and Tuscaroras. The Mohawks had six strings in a bunch, two purple beads to one white, and the four strings of the Onondagas had the same proportion. In the four strings of the Senecas two purple beads alternated with two white. In the division of the younger brothers the Oneidas and Tuscaroras had each seven strings, in which nearly all the beads were purple. The six strings of the Cayugas contained no white beads. These strings were also tied in bunches, and were taken up and held in the hand by the speaker while addressing each nation. As each address was concluded one was laid down and another taken up.

The strings used in condolences are the most important now, but some are already disused. When a principal chief dies, a runner is or should be sent with the proper wampum to the other nations. He goes through the village calling *kwé*, three times at intervals if it is a principal chief, once if it is but a war chief. The wampum varies accordingly. Sometimes there are three runners a few rods apart. There are three small strings of purple beads united at one end for a member of the grand council, as in fig. 35, and a longer single string for a war chief, who is now the assistant of the other. This string has the ends tied, so as to form a circle, as in fig. 41. Attached to the message of any kind is a small stick, with notches to show the number of days to the council or condolence. The wampum is returned at the council, which is more fully described elsewhere. There is a growing disuse of some features, partly through the scarcity of wampum and increasing ignorance of proper forms. Invitation wampum may be used for feasts or any meetings, and even a grain of corn suffices for the 10 days' dead feast.

In the strings described to the writer 10 of dark purple beads were used if the chief's office was vacant by death. If he had lost his

office by marrying and settling in another nation, six short strings of purple wampum were employed. This was no disqualification except when an inconvenience. Mr Hill had married an Onondaga woman and yet was an Oneida chief. Such intermarriages are common, but necessarily affect only the children, who follow the mother's line. Through this it happened that the celebrated Logan was a Cayuga, his equally noted Oneida father having a wife of that nation. Three strings, united as usual, had a few purple beads and contained the new chief's name. He was to be "all good," signified by white beads, while the few purple implied some human imperfections. No allowance was made in the moral law, embodied in 10 very long strings, composed entirely of white beads. These were "all good, same as Bible." Whether the number of the strings had a meaning is conjectural. These strings were 2 feet long and each contained 110 beads. Fig. 31*a* represents a bunch of this kind belonging to the writer. Many others were about as long. Strings serve as credentials, and, armed with what was given him, the writer was informed that he would be listened to by any chief or in any council. It was a letter of introduction, a certificate of authority. Fig. 37 is this wampum.

It may be well to note here that the wampum in question varies much in size, the white being usually thicker than the purple, though this is not always the case. The beads are often more angular than cylindric, and, while the white is sometimes of a creamy tint, the purple passes through various shades, in which the layers of the shell appear. Three strands of purple wampum included a few white beads and were tied as usual. Each string contained 18 beads, and at the end of a condolence this bunch was presented to the three elder brothers. They were told to take it and divide it among themselves, but only did this figuratively. A doubled string of 48 alternate white and purple beads showed the death of a good chief. Two strands of 18 beads each were used in raising a chief. All but four of the beads were purple. Eight strings were used in the confession of sins at feasts. This handsome bunch was 2 feet long, and about every fourth bead was purple. To a large number of others meanings were attached as occasion required.

After the death of Mr Hill in 1895 most of his beads were delivered to the Onondaga and Oneida chiefs. His personal name was Ga-haeh-da-seah, Whirlwind, but his chief name was Ga-no-gwen-u-ton, Setting up ears of corn in a row. It appears on the treaty of 1666.

Of course other things might be used for invitations, as we have already seen. In his *Archaeological report* for 1890-91, p. 24, David Boyle describes some invitation quills which he had illustrated. They were for various occasions, and he quotes one use from the Rev. Peter Jones, among the Ojibwas.

> A young man is generally sent as a messenger to invite the guests, who carries with him a bunch of colored quills or sticks about 4 inches long. On entering a wigwam he shouts out *Kewee-komego*, that is, "You are bidden to a feast." He then distributes the quills to such as are invited. These answer to white people's invitation cards. . . They are of three colors, red, green and white; the red for the aged, or those of the *wahbuhnoo* order; the green for the *media* order, and the white for the common people. —*Jones*, p. 94-95

The writer has some mourning wampum, given him as a memorial of Abram Hill by his wife, and a similar keepsake from herself shortly before her death. Fig. 36 is the former. One mourning string, in another case, was attached to a large silver ring, fig. 33, and belongs to Albert Cusick, the ring being his mother's. Such tokens do not seem common. Some of these figures are reduced.

Fig. 34 has three strings of purple beads, each string terminating with white beads. Fig. 58 is a similar bunch. This was sometimes used in instructing a new chief. Fig. 39 and 40 are of fine purple and white beads, and might be used for any council purpose, or even for ornament. Fig. 42 is of much interest, though less showy. Out of thousands of old wampum beads of this class, these were all the writer could procure showing the aboriginal boring. This is much larger than usual, and wider at the ends than in the center, yet they may have been bored with steel awls. They are all white, and most of them are decidedly angular. In length they mostly exceed the common belt wampum. These are from Cayuga, and were associated with those having a smaller perforation, but which have an antique character.

Fig. 57 belongs to the writer, and contains a chief's name. Fig. 181 and 182 are bunches of strings in Mr Roddy's collection, arranged for council use. Fig. 195 is in the Bigelow collection, and is a miscellaneous lot of small beads from Pompey sites, some of which are much weathered. On Cayuga and Seneca sites they are found in thousands.

As the Iroquois were very punctilious on state occasions, the mere presentation of wampum was sometimes an honorable distinction. It was customary to receive the Five Nations at Albany with a salute from five cannon, but the French usually did more. When the Iroquois deputies went to Montreal in November 1756, they were surprised that no one came to meet them and that they were not received with the usual ceremonies. A note explains the meaning. In Canada "the Five Nations are the only ones for whose reception there is an established etiquet. An interpreter is sent to meet them, who presents them with some strings of wampum, and when they enter the town they are saluted by five discharges of cannon."—*O'Callaghan. Colonial hist.* 10:556

The Moravian bishops held a conference with some Seneca chiefs in Philadelphia July 17, 1749, and mention was made of Count Zinzendorf's wampum string. Von Watteville promised to visit Onondaga the following spring, and gave a fathom of wampum to confirm his words. "There was then handed to the interpreter a beautiful fourfold fathom of wampum of white and blue beads, with a large blue ribbon, who handed it to the Indians. It was received with great consequence, they studied over its meaning, and then wrapped it up carefully for preservation." John W. Jordan published the full account of this interesting conference from the diary of the congregation in the *Moravian* in 1898.

Abundance of wampum

Few antiquarians have any idea of the scale of supply for the wampum trade after the colonization of New York. Sir John Lubbock expressed surprise at the large number of beads sometimes found in early remains, when work was slower and methods ruder.

In speaking of this, William H. Holmes points out some historic examples in which the quantity was moderately estimated. The Onondaga belt which he cites is now 210 beads long by 50 rows wide, containing about 10,500 beads in its imperfect condition, and may have been double that size. In Barber and Howe's account of the wampum manufacture in New Jersey in 1844, it was stated that from 5 to 10 feet of wampum beads was a woman's ordinary day's work. This would be an average of 375 small beads daily, or about 112,500 for one person's yearly product. It was made in several places, and from 50 to 100 persons would carry the annual supply far into the millions. Furman says that several bushels of wampum were taken from Oyster bay in 1831. Elsewhere this is said to have come "from Babylon on this island, and the person who had this stated that he had procured this for an Indian trader, and that he was in the habit of supplying those traders with this wampum." In the days of the Dutch colony the average value of wampum was about 120 beads to the guilder. In 1664 Stuyvesant wished a loan of 5000 to 6000 guilders in wampum negotiated at Albany to pay the laboring people. This would have required over half a million beads and probably much more. In 1622 a Hudson river chief paid a ransom of 140 fathoms of sewant.

These few facts prepare us to understand the sudden abundance of wampum in New York and Canada, and the astounding statements in early New England history. Some of these are quoted from *Indian biography* by B. B. Thatcher, without farther credit. In treating with the Narragansetts in 1645 the commissioners, "to show their moderacon required of them but twoo thousand fathome of white wampon for their oune satisfaction," besides some equally mild conditions for Uncas. If the fathom is literal this would be but about 576,000 wampum beads. This was "moderacon" indeed. When 1300 fathoms were due, the Narragansetts sent into Boston 100 fathoms, which trifling quantity of over 28,000 beads the commissioners would not accept, though 70 fathoms had been paid the first year. A little later the Narragansetts brought in 200 fathoms more. An allowance of 20 days for paying another thousand fathoms was then granted. In 1649 the English acknowledged the

receipt of 1529½ fathoms and prepared to fight for the balance. In 1650 they said 308 fathoms were still due, and vigorous measures followed. All arrearages were paid on the spot. Smaller amounts were exacted or paid elsewhere, but all show the abundance of shell money. At a council at Albany in 1691, the Five Nations received a present of 1000 guilders in white strung wampum, equivalent to 150,000 beads.

Wampum as money

When Washington Irving wrote his humorous account of shell money among the Dutch colonists, many persons thought it a stretch of fancy, while in truth wampum was long the common currency. The New England colonists seem in a measure to have led the way in legal enactments, and many of these appear in the *Public records of Connecticut.* Wampum was there given an established value of four for a penny in 1637.—*Pub. rec. Ct.* 1:12. In 1640 it was ordained that "the late Order concerning Wampu at sixe a penny shalbe dissolued, and the former of fower a penny and two pence to be paid in the shilling shall be established."—*Pub. rec. Ct.* 1:6. It was again six a penny two years later. In 1648 it was ordered "that no peage, white or black, bee paid for or receiued, but what is strung, and in some measure strung sutably, and not small and great, vncomely and disorderly mixt, as formerly it hath beene." "The Commissioners were informed that the Indyans abuse the English with much badd, false and unfinished peage, and that the English Traders, after it comes to their hands, choose out what fitts their marketts and occasions, and leaue the refuse to pass to and fro in these Colonies, w^{ch} the Indyans, whoe best understand the qualities and defects of peage will not willingly take back."—*Pub. rec. Ct.* 1:179

In 1648 Massachusetts ordered that wampum should be legal tender to the amount of 40 shillings, if good. White was to be eight for a penny and black four. It is also said that the use of wampum as money was unknown to the colonists of New England till 1627, when it was introduced by Isaac De Razier, secretary of New Netherlands, while on an embassy to the Plymouth colony.

This might be understood of its use by the whites, but an early historian lamented its introduction.—*Hubbard,* p. 40

There are some references to its value in the Holland documents. In 1650 complaint was made that no order had been received relating to wampum as currency in New Netherlands. The West India company answered that there was no currency among the common people there but wampum, which formerly passed at four for a stiver and was now six. Without regulating its value it was noted in 1634 that "wampum being, in a manner, the currency of the country, with which the produce of the interior is paid for, must be considered as obtained goods, being the representative thereof." In 1658 the sheriff of New Netherlands, acting as commissary, was selling goods in small quantities for wampum. Proposals for changed values were frequent. The Holland directors wrote in 1656: "We consider a change in the value of your currency, that is, placing the beaver at six florins instead of eight, and wampum at eight for a stiver instead of six, a matter of great importance which must be well considered." On this Gov. Stuyvesant wrote in 1660: "To reduce the price of wampum to 12 or 16 for a stiver, as we have reduced it from 8 to 10, in receiving it at our offices, will remedy the evil only for a brief period. The traders would give the length of a hundred hands instead of fifty." A stable metallic currency was needed.

The *Laws and ordinances of New Netherland,* 1638-74, contain many wampum laws. In 1641 rough and unpolished beads had been brought in, "and the good polished wampum, commonly called Manhattan wampum is wholly put out of sight or exported, which tends to the express ruin and destruction of this country." In 1647 loose wampum was to continue current, but imperfect, broken and unperforated beads were to be picked out and declared bullion. In 1650 loose wampum had depreciated from poor quality, and there were "many without holes and half finished; also some of stone, bone, glass, mussel shells, horn, yea even of wood and broken beads;" therefore it must be strung. Good should be six white and three black for a stiver; poor, eight white and four black for the same. It was to be legal tender only in limited quantities.

In 1657 it was too abundant, and grocers made a difference in prices of 30, 40 and 50% when selling for wampum or beaver. Being both long and short, it was to be paid by measure, yet a white bead was to be a half farthing, a black bead a farthing. In 1658 there was a greater difference in prices. Eight white and four black were to be a stiver, and a coarse wheat loaf of 8 pounds was to be seven stivers in silver, 14 in wampum; and a white loaf of 2 pounds was to be four stivers in silver and eight in wampum for the present. In 1662 wampum went down to 24 white or 12 black for a stiver. There was no duty on imported wampum.

In these constant changes wampum at last became scarce. The English felt this inconvenience soon after taking New York, and a proclamation was issued in 1673. "Where as ye great scarcity of wampum throughout these His Royal Highness his territories hath been taken into consideration, great quantities thereof being yearly transported and carried away by the Indians, and little or none brought in as formerly, which is conceived to be occasioned by ye low value put thereupon: And for that there is no certain coin in ye Government, but in lieu thereof wampum is esteemed and received as current payment for goods," to encourage bringing it in, "instead of eight white and four black wampum, six white and three black shall pass in equal value thereof as a stiver or penny, and three times so much in ye value of silver."

The running comments on this currency have some interest. In 1659, "wampum had already been reduced from six to eight for a stiver." It ceased to be valued "by counting so many for a guilder or stiver, but by the handful, length or fathom, and traders can afford under the circumstances, receiving more pieces for one stiver, to give a longer string to the natives for a beaver." In paying soldiers that year wampum was to be reckoned at a lower rate; and this reduced "the currency value of a beaver from 5 to 7 guilders. . . . This special reduction of wampum must necessarily be followed by a more general one, if we desire to prevent its complete debasement, caused by the abundant importation of wampum by the people of New England." They had quick returns in trade, while the Dutch sat "on their boxes full of wampum, a medium of

trade currency only among the savages of New Netherlands. So merchants here with whom we have consulted, fear that the natives may change their minds in this respect, and state that the tribes begin to incline towards another kind of bead, which they mix with the wampum for the sake of ornament." This was but a prospective evil. As yet the Indians wanted no gold or silver, but did want wampum. "Wampum is the source and mother of the beaver trade, and for goods only without wampum we can not obtain beaver from the savages. If we receive no wampum from outside—we have none in our country—this would certainly cause a diversion of the beaver trade." In losing part of Long Island much of the wampum supply was lost, though by no means all. The colonists complained in 1649 that "the English tried to exclude Dutch from Indian trade, so as to have all the profits of the wampum trade." The following year Van Tienhoven said that Gardiners bay was "well adapted to secure the trade of the Indians in Wampum, (the mine of New Netherland) since in and about the abovementioned sea and the islands therein situate, lie the cockles whereof Wampum is made, from which great profit could be realized." It is added that "the greater part of the wampum is manufactured there by the natives." The preceding year it was said that Indian "money consists of white and black Wampum which they themselves manufacture; their measure and value is the hand or fathom."

Other articles fluctuated in price with wampum. In 1648 trade had been injured by Indian wars. The Dutch had to "give two fathom of white and one of black wampum for one beaver. . . Each fathom of wampum contained three ells; some one-sixteenth less. The Indians select the largest to trade." The prices established in 1657 were "for a merchantable beaver two strings of wampum; for a good bear-skin, worth a beaver, two strings of wampum . . . for a deer-skin 120 wampum." In 1660 the Senecas would come and trade with the Dutch if they would give 30 handfuls of black or 60 of white wampum for a beaver. In 1655 beavers were valued at nine guilders in repaying 1500 guilders of black and white wampum. We need not quote its many other uses in trade, except that part of the payment to the Mohawks for lands west of

Schenectady in 1672, was 600 hands of good white wampum. At that time a fathom string varied from five shillings in New England to four guilders, or $1.665 among the Dutch.

In John Winthrop's *Journal,* 1:136, is an item of some importance regarding the early use of wampum as money. It is under the date of July 9, 1634. The magistrates of Plymouth came to Boston to consult about the Kennebec country. They had traded there many years, and "had by this providence, drawn down thither the greatest part of the trade by carrying wampompeage thither, which none of the English had known the use of before." This harmonizes with the statement that the Dutch taught them its use in 1627. Gov. Bradford's words on this seem conclusive as to its introduction into New England at an early colonial day. He was the second governor of the Plymouth colony, and wrote a history of the plantation. In his record of the year 1628 he speaks of this visit of the Dutch to Plymouth and of the English to Kennebec, but his statement has never before been given and is here quoted nearly in full.

"That which turned out most to their profite, in time, was an entrance into the trade of Wampompeake; for they now bought aboute 50[li] worth of it of them; and they told them how vendable it was at their forte Orania, [Aurania, now Albany] and did perswade them they would find it so at Kenebeck; and so it came to pass in time, though at first it stuck, & it was 2 years before they could put of this small quantity, till y[e] inland people knew of it; and afterwards they could scarcely ever gett enough for them, for many years togeather. . . And strange it was to see the great alteration it made in a few years amonge y[e] Indeans themselves; for all the Indeans of these parts, & y[e] Massachusetts, had none or very little of it; but y[e] sachems & some spetiall persons that wore a little of it for ornaments. Only it was made & kepte amonge y[e] Narigansetts & Pequents, which grew rich & potent by it, and these people were poore & begerly, and had no use of it. Neither did the English of this plantation, or any other in y[e] land, till now that they had knowledge of it from y[e] Dutch, so much as know what it was, much less y[t] it was a comoditie of that worth & valew. But after it grue thus to be a comoditie in these parts, these Indeans fell into it allso, and to learne how to make it; for y[e] Narigansets doe geather y[e] shells of which y[ey] make it from their shors. And it hath now continued a current comoditie aboute this 20 years, and it may prove a drugg in time. In y[e] mean time it maks y[e] Indeans of these parts rich and power full, and allso prowd therby; and fills them with peeces, powder, and shots, which no laws can restraine.—*Bradford,* p. 234-35

Poor wampum would naturally sometimes be found, and allusion has been made to this. This was mostly in New England, where the material was inferior to that of Long Island. In the Winthrop papers, (1644) one writer complains of this. "As for the blew wampom there is 18*s*. of it, at 3 a peny, but I will not take such as this vnder 6 a peny. I had rather haue white wampam, then bad blew at 6 a peny. I will kepe it, because you may redeeme it for white."—*Winthrops. Letter*, p. 377

Though the Iroquois quite recently used wampum as money, our latest trace of it in this way among ourselves may be in 1693, when "the ferriage for each single person from New York to Brooklyn was eight styvers in wampum, or a silver two-pence."—*O'Callaghan. New Netherland*, 1:61

Poor wampum was refused in New Amsterdam in 1650, and the authorities then ordered "that badly strung wampum shall be current money, and be accepted as such by everybody without distinction or exception, for small and necessary commodities used in the house, and that it shall be current up to the sum of 12 fl. and less in badly strung wampum, in sums between 12 and 24 fl. in half bad, half well strung beads, from 25 to 50 fl. one third bad, two thirds good wampum. . ."—*Fernow*, 1:17

Ornament

Wampum was often used for personal decoration. The Jesuits said that the Hurons (1638) wore "around their necks and arms necklaces and bracelets of porcelain. They also suspend them from their ears and around their locks of hair." In Sagard's *Grand voyage* (1632) he speaks of shell beads among the Hurons which were apparently large. "These shell beads (*pourceleines*) are the bones of those great seashells which one calls vignols, similar to snails, which they cut in a thousand pieces, and polish them upon a piece of fat. They pierce these, and make collars and bracelets of them with great toil and labor." These were very unlike the small council wampum made from the Venus mercenaria. They called them *onocoirota*, and they were valuable. For ornamental use "the beads are differently threaded. Some colored ones, three or

four fingers broad, are like the saddle girths of a horse which would have the pack threads all covered and threaded with them. These collars are about three and a half feet in circumference or more, which they put in quantities on their necks according to their ability and wealth. Then others are threaded like our paternosters and fastened to and hanging from their ears. There are some chains of beads of the same porcelain, large as nuts, which the women fasten upon the two hips and which come in front, arranged in order perpendicularly above the thighs or trusses which they wear." These were ornaments fit for their divinities. They told the Jesuits (1636) that *Ataentsic* sometimes took the form of a beautiful girl, "adorned with a fair collar and bracelets of porcelain."

The Hurons told a curious story of some of these shells which seems to belong to the Gulf states, being connected with another in which alligators appear. The Jesuits said (1641):

Some old people used to tell our fathers that they had knowledge of a certain western nation against whom they were going to make war, which was not far from the sea. That the inhabitants of the place fished there for periwinkles, which are a kind of oysters, the shell of which serves to make the porcelain which are the pearls of the country. This is the manner in which they describe their fishing. They notice when the sea rises to the places where these periwinkles abound; and when the violence of the waves pushes them towards the shore, they dive into the waters and seize those which they can catch. Sometimes they find those so large that it is all they can do to hold them.

The Jesuits took advantage of this fondness for ornament. At Oneida (1670) Bruyas gave a string of glass beads, two long bugle beads, or two bronze rings as rewards. He recorded many Mohawk words relating to wampum and its uses. A set phrase was used when wampum was cast on a corpse, to comfort the mourners. The Mohawk name of this ceremony was *gannonton*. The same writer (before 1700) called wampum *ondegorha;* a string of wampum *onnongwira*, and a belt *gaionni*. *Garensa* was a string of glass beads. Arent Van Curler (1635) gave the name of *onekoera* to wampum, and *eytroghe* to glass beads. To Bruyas we owe the mention of "*gannisterohon*, dance of the Agoianders, where they give wampum to the spectators." This was a dance of the nobility which has

disappeared, and it seems to have been a largess. They provided wampum for many occasions. *Onniatsara* was the "porcelain which the women attach to the hair which hangs back of the head."—*Bruyas*, p. 75

Zeisberger's Onondaga dictionary has many Mohawk words. In it wampum appears as *otgora*, a belt of this as *gaschwechta*, and a string as *ganachsa*. The Seneca name of a shell bead is *otekoa*. In the note to Montcalm's letter of April 24, 1757, taken from Lafitau, we are told that the belts were commonly called *gaionne;* also *garihoua*, an affair, and *gawenda*, a speech or message. Another name was *gaianderensera*, greatness or nobility, as chiefs only were employed in affairs requiring belts. They furnished belts and strings, and the wampum was divided among them when presents were made and answers given. Among the Onondagas now wampum is called *ote-kó-*, a wampum belt is *ote-kó-ă-ka-swén-tah*, and a wampum string *ote-kó-ă-ka-náh-sah*. Not long since they used it as money, and persons yet living have been paid in this.

Pictures of women adorned with large beads appear in accounts of Champlain's voyages. The French also observed that the Canadian Algonquin women, in 1639, "wear their hair in a knot at the back of the head, in the form of a truss, which they ornament with porcelain when they have any." An Iroquois chief, who was killed in an attack on the French in 1642, wore "a kind of crown of deer's hair tinted scarlet, with a collar of porcelain." In an account of differences between Indians and Europeans, written in 1658, it was noted that the savages wore bracelets about their elbows and ankles as well as wrists. Men wore wampum collars more than women. They wore small wampum beads variously strung, chaplets of beads, little tubes of glass or of shells. This relates to Canada.

In an account of New York Indians in 1649, it is said, "They twine both white and black wampum around their heads. Formerly they were not wont to cover these, but now they are beginning to wear bonnets and caps which they purchase from the Christians. They wear wampum in their ears, around the neck, and around the waist, and thus in their way are mighty fine." Arnoldus Mon-

tanus said in 1671, "The clothing of the New Netherlanders is most sumptuous. . . All wear around the waist a girdle made of the fin of the whale or of seawant. . . The women wear a petticoat down midway the leg, very richly ornamented with seawant, so that the garment sometimes costs 300 guilders. . . The women bind their hair behind in a plait, over which they draw a square cap thickly interwoven with seawant. They decorate the ornaments for the forehead with the same stuff. Around the neck and arms they wear bracelets of seawant, and some around the waist."—*O'Callaghan*, 4:125-28

Prisoners were sometimes treated with the greatest kindness and distinction before being tortured, and this was done at times by both Hurons and Iroquois. Some Andastes were brought in triumph to Onondaga in 1670, and had this honor. For a while before their torture "they crowned these poor victims, according to custom, with the rarest feathers and the most beautiful porcelain that could be found." In the curious account of the kind treament of an Iroquois prisoner by the Hurons, preliminary to his torture, *Relation* of 1637, p. 110, we are told that "he was clothed in a beautiful beaver robe, he had a collar of porcelain about his neck, and another in the form of a crown about his head." Thus clad, Brébeuf added, "Even to the hour of his torture, we saw exercised on his part nothing but traits of humanity."

Such observations on mere adornment might be indefinitely extended, but it will suffice to refer to the wampum pipes and small round shells included in the presents of 1702. The pipes were the long tubular shell beads so often found, and the round shells probably the ornamented and perforated disks, or runtees. They were tasteful as well as showy, and both were then in use.

In 1605 Champlain found the Indians on the New England coast wearing shell beads. He observed, 10 years later, that the Hurons wore bands of porcupine quills dyed scarlet. Beside these, shell beads were also much worn, but apparently of a large size. The French always called these porcelain. When Jacques Cartier visited Hochelaga, now Montreal, in 1535, he told a strange story of the *esurgny*, which was white and their most precious possession.

This "they take in the said river in *cornibots*, in the manner following. When any one hath deserved death, or that they take any of their enemies in warres, first they kill him, then with certain knives they give great slashes and strokes upon their buttocks, flankes, thighs and shoulders; then they cast the same bodie so mangled downe to the bottome of the river, in a place where the said *esurgny* is, and there they leave it ten or twelve hours, then they take it up againe, and in the cuts they find the said *esurgny*, or *cornibots*. Of them they make beads, and use them even as we doe gold and silver, accounting it the preciousest thing in the world. They have this vertue in them, they will stop or stanch bleeding at the nose, for we proved it."

All writers have considered these shell beads. Sir J. W. Dawson said, in *Fossil men*, p. 32: "It is probably a vulgar local name for some shell supposed to resemble that of which these Indians made their wampum. I would suggest that it may be derived from *cornet*, which is used by old French writers as a name for the shells of the genus Voluta, and is also a technical term in conchology. In this case it is likely that the *esurgny* was made of the shells of some of our species of Melania or Paludina." Neither of these shells is white unless very much worn. The Paludina or Melantho is green, burrows in mud along the shore, and is thus easily procured. The Melania or Goniobasis is of a dark yellow, or brown, does not burrow as a rule, but adheres to stones in shallow or deep water, and can be as readily gathered. Both seem vegetable feeders.

Charlevoix refers to this story. "James Cartier in his memoirs makes mention of a shell of an uncommon shape, which he found, as he says, in the island of Montreal; he calls it *esurgni*, and affirms it had the virtue of stopping a bleeding at the nose. Perhaps it is the same we are now speaking of, but they are no longer to be found in the island of Montreal, and I never heard of any but the shells of Virginia which had the property Cartier speaks of."

Hardly any shell beads have been found at Montreal or on the earliest Mohawk sites, and the story has an extravagant appearance. If it is to be received, the writer has already suggested a possible

solution. The fresh-water lobster is carnivorous, and its long horns might suggest the term, *cornibots*. Back of the eyes are sometimes found small, white, polished and half globular substances known to most country boys as eyestones, and used by them for very simple surgery. Fig. 10 shows one of these. To make a fair bead they would require only perforation. They are often called eyestones because placed very near the eyes, while really in the stomach of the crustacean. Hence they are more properly known to naturalists as gastroliths, or stomach stones. Very often they are not found, being absorbed about the moulting season. This would add to their value. On the other hand, no such beads have ever been reported in any way, and they must have had a limited range if used at all. Their small size may have caused them to be overlooked, as it would have contributed to their loss or rapid decay. It should be noted that the *esurgny* were not the same as the *cornibots*, but were taken in them. To a practical naturalist, acquainted with the forms and habits of all New York and eastern Canadian fresh-water snails, this seems the possible solution of a puzzling statement, though it may appear absurd to some. In fact, Cartier's story seems, itself, absurd.

From their variety and importance the writer has treated beads separately, as well as some other classes of ornaments. Those of a more miscellaneous character may be grouped here.

Among these are some which may be called flattened or disk birds. They are rather thin flat pieces of shell, cut into a more or less bird-like form, in general outline somewhat like a plump duck. There is a short neck, sometimes expanding into a small head. For suspension they are perforated longitudinally through the neck. All those figured are of actual size except one. They came into use about 1660 or a little later, and occur on most recent sites for a century more. Good examples have been abundant on Indian hill, Pompey, occupied from 1650 to 1681. Fig. 215 from that town, is reduced in size. A great many have been found on Cayuga sites, and fig. 76 is a good example out of some found at Fleming. Fig. 73 is of white shell, and comes from Cayuga county. One from Happy hollow, a little west of Canajoharie, has a small

head and an unusually long neck. Fig. 75 shows this. Fig. 77, of dark purple, is from the McClure site near Canandaigua, and there are good examples in the fine collection of Raymond Dann, made just west of Honeoye Falls (N. Y.) The form is very frequent on Seneca sites, and purple shells were commonly employed.

Distinct bird forms occur in shell, with some of a doubtful character. Fig. 89 is of an owl in A. G. Richmond's collection, and found near Canajoharie. Fig. 72 is of a larger ornament in the collection of W. L. Hildburgh, of New York city. This is from the recent site at Oneida Valley, occupied after 1750, and may have represented a flying bird. Fig. 91 is a fine owl from the Dann collection, and is ornamented with lines and dots. Though made mostly from one site, this collection is unequaled in New York in its array of articles of shell. Fig. 97 is a broken bird, ornamented with dots and lines, and is from the same site. After being broken at the neck it was drilled again for suspension, through the short diameter at the base. Fig. 92 is from the same collection and is much weathered. The details having been lost, it may possibly have been a mere pendant. Fig. 93 represents an intermediate form in this collection. It is much weathered, but has the usual perforation in the neck. Though of the class of ornaments immediately following, it is less symmetric, and of unusual length and width. Fig. 90 is a very rare form from Venice (N. Y.), made from a bivalve shell. Fig. 94 is a fine expanded example from Canajoharie. Fig. 66, belonging to Mr Hildburgh, is a bird from Oneida Valley.

Among the most common articles in bone and shell are those suggestive of birds, of slender form and with long necks and heads. They have a single lateral perforation through the neck, and are often broken at that place. While rarely plain, the ornaments are mere lines and dots, and the material is quite as often bone as shell. Fig. 218 is from Pompey and is the only one represented less than the actual size. Fig. 60 is a broken one from Munnsville, ornamented with lines alone. Fig. 65 was found by W. W. Adams on the site of old Cayuga castle, with many others. This is purple, but they are usually white. Fig. 70 is a large and fine one of the same hue, and from the Sibley farm, Foxridge. A lateral view is

given, showing the perforation. Fig. 263 is from Indian hill, Pompey, 1650-81. Hundreds of figures might be added from recent sites. One curious form appears in fig. 63 of actual size, and in fig. 217 reduced. It represents a conventional quadruped, and is from Indian Castle, Pompey. A broader form from the same place is more like a turtle, and is much reduced in fig. 216. Both these are in the remarkable collection of O. M. Bigelow, Baldwinsville (N. Y.) Fig. 61 and 68 are from near East Bloomfield, and are in the Hildburgh collection.

Other common ornaments, somewhat resembling these, are often called crescents for want of a better name. These little ornaments may be either of bone or shell, are moderately curved, pointed at each end, and have a double perforation for suspension. Mr Hildburgh has a number of these from a recent grave at Oneida Valley, arranged as they were found. There were 16 of the crescents, strung with 36 shell beads, the double rows of which kept them apart. Fig. 62 shows four of the crescents thus arranged with the beads. Fig. 83 shows one of more than usual size from Indian Castle, Pompey. Eight, from the same place, appear much reduced in fig. 200. These are now in O. M. Bigelow's collection. Fig. 69 gives two views of one from the site of East Cayuga. They abound also on the Seneca and other recent sites.

Some of the finest finished articles represented turtles; and it has been a favorite, but not well grounded idea, that these were personal totems. Had this been the case, other clan symbols would have appeared, whereas they are either rare or unknown, as will appear from their omission here and the presence of others having no significance. They were simply ornaments, as the writer finds is the case with the later ones of silver. Fig. 98 is a good example of one of these turtle forms, ornamented with lines and dots. This was found in 1890, on the *Onahee* site, McClure farm, Hopewell (N. Y.) Some of the best specimens are from this site. Fig. 99 is from the same place, and is of the same form. Four lines of dots are inclosed by semicircles laid out with compasses. Fig. 103 is of a still finer example found there, but which has unfortunately lost its head. It is much larger and broader than usual, and is

ornamented with dots and lines. Fig. 95 is remarkable for its material, being of oyster shell. The eyeballs are strongly marked, and it has been broken off at the hinder limbs. This is in the Dann collection. Fig. 96 is another good example of the turtle ornamented with half circles and dots. It is from Pompey, and was in the collection of the late L. W. Ledyard of Cazenovia. Fig. 74 is another rude example from Pompey, possibly early. Fig. 102 is an animal form from a Cayuga grave, and may have lost its head, necessitating a new perforation. It is ornamented with dots in rows. Fig. 100 is a beaver with its scaly tail, and is from the *Ganagarae* site, lot 13, East Bloomfield. It is made of a very durable shell, and is 1.75 of an inch long. The neck is perforated as usual.

Fishes have no significance as clan totems, but good examples occur in shell and stone. Fig. 101 is one from Cayuga. They all have two vertical perforations, one on either side of the dorsal fin. Fig. 104 is of one broken at the forward hole. Fig. 212 is from a reduced photograph of the same. It was found at Indian Castle, Pompey, and was therefore made in the last half of the 17th century. With the following two it is now in the Bigelow collection. All three are from Pompey. Fig. 59 lacks the dorsal fin, and the holes are on either side of the ventral fins. It is quite suggestive of the sturgeon, but lacks some features. Fig. 105 is much the finest of these, possibly intended for a black bass in spirited action. It is of a hard and highly polished shell, and is ornamented with diagonal lines inclosing dots.

Cylindric pendants are not common or large, as few shells would afford material for these. Fig. 67 and 71 are of two in the Hildburgh collection and are 1 inch long. Both are from the McClure farm, Hopewell. Fig. 31 is of another, quite large and thick, which came from the Van Arsdale farm, Fleming (N. Y.) Those which are thin and flat are much more common. Fig. 32 is large, angular and flat, with one perforation in which is a copper ring, and comes from Indian hill, Pompey. Fig. 78 is of nearly the same form, but is thin and has a small perforation at each end. It is in the Dann collection. Fig. 88 is from Hopewell, is quite flat, and has

a vertical perforation. Fig. 86 is a small flat pendant from Indian hill, Pompey.

Discoid beads

Early flat or discoid shell beads are somewhat rare in New York. The writer has found but one antedating the year 1600; and some other collectors have been no more fortunate. Some occur on an Onondaga site of that period, and on another occupied by that nation about 1640, nearly all the shell beads are small disks. Later than that there are few in that county. They are not so rare on more recent Seneca town sites, and have been found on several in large numbers. From a recent Oneida town site has also come a fine lot of very small ones, mostly quite thin, and both purple and white. These belong to the writer, and are shown in fig. 38, with a tooth and two other beads. These soon gave place to the more showy council wampum.

Mrs Converse obtained a string of small and irregular disk beads, for the state museum, about 46 inches in length, which she called "Canadian Algonquin wampum." The ends of the string are united by a large, red ribbon, and at intervals are brownish red, orange yellow, and light and dark blue ribbons. She says: "This string belonged to the old bunch which was sent by the Algonquins to the Mohawks, long before Brant's time, as a ransom for an Algonquin captive. The Mohawks carried it with them when they ruptured the league of the Iroquois, and departed with Sir John Johnson and Brant. The original bunch was strung on sinew. In the various divisions thread has been substituted. Originally the bunch was decorated with various colored feathers, which have been replaced with the more modern ribbon. Red signifies war, light blue the morning sky, yellow the sun, dark blue the noon sun, maroon or very dark red the approaching of the night shadows. Each decoration signifies the division of the story of this wampum, which was recited at the ancient councils. This string has been preserved as a record and not used in modern times. I believe this to have been constructed before the pictograph wampum belts.—*Grand River reserve, Canada,* June 7, 1899." Fig. 233 shows this.

The Iroquois had Algonquin captives in hundreds. It is possible such a string may have kept the general fact in memory, but the ransom went to the owner of the captive. The tradition seems defective in some points, but the beads are probably of moderate age. The eastern Iroquois used this kind sparingly from 1600 to 1640, and the earliest record of pictograph wampum belts was a dozen years later. On the other hand, the disk beads were fine and abundant among the Senecas as late as 1700, and not rare with the others. They were recently and largely in use in our western territories, and were divided by stones instead of ribbons, each division having an extravagant trade value. One in the hands of the writer would have bought several horses. In his experience colored ribbons or bright cloths are used merely for a pleasing effect, but in important affairs some colors become emblematic. In this instance the dark blue ribbon has been added since 1893.

With slight exceptions New York discoid shell beads date from the latter part of the 16th century, becoming most abundant during the next hundred years. Sir J. W. Dawson informs the writer that the only shell bead he found at Hochelaga was of this kind, but the longer marine beads have sparingly appeared on that interesting site, and may be of any age. A few New York examples will be given. Probably the earliest yet found was in the curious and early cemetery reported by S. L. Frey, a little east of Palatine Bridge. Mr Schoolcraft, in his *Notes on the Iroquois*, p. 142, figured a large disk bead from Onondaga, and had found others in the Neutral ossuary in Beverly, Canada. He says these were first disclosed on opening the Grave creek mound in 1839. His general description of this form is good. "Decomposition gives its surface a dead white aspect and limy feel. The powder scraped from the surface effervesces in acids. It is generally, not uniformly, an exact circle, and resembles extremely a very thick horn button-mould." His New York specimen is of the 17th century, and we can not uphold his conclusion that "its occurrence in Onondaga denotes the universality of the art in the ante-European period." These flat beads were used at an early day, but a recent example is no proof of this.

It is rather surprising that these seem to have no very early date on Long Island. Our best authority on that region, W. W. Tooker of Sag Harbor, writes: "I have seen discoid and other shell beads from graves here. The graves were about the year 1662 in one place, and about 1700 in another. I have never seen any from ancient graves. The graves here in which I discovered two vessels of clay, contained no beads or ornaments of any kind." Their absence is but negative testimony, but on the whole they seem to have had no great antiquity in New York. Quite a number from Pompey appear on the same plate with the largest gorget. These are not separately numbered; and all are recent, and reduced in size in fig. 206 and 221.

Fig. 197 on the same plate, is of a string of these, about 80 in number, which were found near the canal lock, 1½ miles north of Cayuga, in the town of Aurelius. They seem of early date, being of irregular thickness and form, and have some ridges on the circumference. They are much reduced in this figure. All the others on this plate are from Pompey, and all are in the Bigelow collection. Apparently this string contains the oldest yet found, unless a small one with the stone tubes in the Palatine Bridge grave should prove earlier. All the rest of seashell to be noted are recent, and of actual size.

Fig. 256 and 257 represent two of very large size, found at Cayuga, along with others very small. Fig. 27 is from Indian hill, Pompey, and is very neatly made. Fig. 21 is an example out of many small ones, with quite large perforations, from Union Springs. They are quite frequent in graves east of Cayuga lake. Out of one grave were taken 124 small ones, and out of another 72 with large perforations. Unios furnished the material for the first of these two lots, and they are represented in fig. 21. Some Venice beads are thin as paper. One was found north of Fort Plain, exactly like fig. 27, and the form is frequent in the Mohawk valley. Many large and small occur at a site south of Pompey Center, occupied about 1640. They are abundant on recent Seneca sites, and small ones have been found at the early fort west of Cazenovia. A fine, large disk bead of Unio shell, represented in fig. 14, was

found by the writer on a fort site near Baldwinsville, a few years older than the last mentioned. The outer side, next the epidermis, is ground flat, while the nacre on the other side is left undisturbed. The central perforation was mostly made from one side. Such ornaments are extremely rare. With so common and fine a material this is at first surprising, but it may have been neglected because common. A worked piece of this which is unfinished, is from the fort west of Cazenovia. A thin ornament of this, represented in fig. 220, has also been found in Pompey. Fig. 125 is an unperforated disk of pearl from the mission fort site at Onondaga lake. Unio complanatus shells, however, are abundant on early Mohawk sites and some others, the mollusk having been used as food. The other and finer species rarely appear. Fig. 38 is a string made up mostly of very small disks from near Munnsville, and has been already described. Fig. 266 is a Cayuga bead with an inside rimming. This is a rare feature.

Massive beads

Mr Holmes gives several forms of massive beads on page 224 of *Art in shell*, some of which are frequent and fine on recent New York Iroquois sites. It must be remembered that most shell articles in this state west of Albany are not prehistoric. His plate 34 gives examples of a class which he says "are more decidedly aboriginal in character than those of any other group, and are without doubt of very ancient origin. They are widely distributed, and have been found in graves and mounds covering an area outlined by Massachusetts, Canada West, Minnesota, Missouri, and the gulf and Atlantic coasts."

Some of those represented are modern in character and are found in New York. Others have not yet appeared there. His fifth example is from Monroe county, N. Y., and presumably from the site near Honeoye Falls, where shell pins and European articles have been found. The form was largely used there and elsewhere in the last half of the 17th century. The Swanton bead belongs to the same period, and some California forms differ little from recent examples in New York. While long cylindric shell beads or wam-

pum pipes are common on recent Iroquois sites, the shorter and thicker beads are often angular, but disks and spheres are by no means rare. Out of a large number of the thicker and shorter beads some characteristic forms are shown.

Fig. 196, 198 and 214 from Pompey present several much reduced, which are in the Bigelow collection. Fig. 106 is of actual size, as are those which follow. The angles are rounded, and in section it follows the curve of the shell. This is from Indian hill, Pompey, occupied from 1650 to 1681. Beads of this class range from small to large sizes, and vary much in form. Fig. 84 is a long, flat bead, of moderate thickness, found on the Dann farm near Honeoye Falls. Fig. 130 is from the same site, and is triangular in section. Massive beads have been abundant there. Fig. 136 is somewhat spheric, and is from the same site. Fig. 109 is a large bead from Scipioville, where similar forms are frequent. Fig. 112 is from a recent grave at the East Cayuga site. Fig. 114*a* comes from Venice in the same county. This somewhat cordate form is frequent there. Fig. 151 is larger, but resembles the last. Fig. 141 differs slightly from these, and is from the same town. Fig. 107 is a longer form from Pompey. Fig. 113 is another of these large heads, most of which are flattened. Fig. 129 is a large angular bead, also from Pompey. Fig. 137 is similar and smaller. Fig. 152 shows another bead from the same town, almost cylindric. Fig. 150 comes from Baldwinsville, and resembles the last except in being triangular in section. To these many might be added. Sometimes there is a double perforation part way, and in one case a fossil shell has been used. Large shell beads are more common from Madison county to the Genesee river than farther east, and can only be expected on town sites or in graves. Almost all are recent. Fig. 204 is a globular bead from Pompey, and fig. 213 a short cylindric bead from the same town. Both are reduced.

Long beads

The name of wampum pipes seems to have been applied to long cylindric beads about the size of common pipestems, and which resemble them when weathered. Fig. 193, 194 and 207 show strings

of these much reduced in size. Fig. 219 is similar, and has an ornament attached. These are all from graves in Pompey and are in the Bigelow collection. When taken from graves, there is often more or less of a coating of a brown substance, perhaps from contact with the flesh. This appears on several of these. As a standard of measurement the extreme width of the largest gorget on this plate is 5.25 inches. Where beads are as slender as these all traces of the species are usually obliterated, and many of them may have been made by the colonists for the Indian trade, all of these slender ones being recent. They are frequent on many sites and are quite uniform in character.

Fig. 115 is a good example of this class from East Cayuga. It is 4.75 inches long and well polished. The harder shells often retain this polish, while the softer easily corrode. Others were found with this one. Fig. 127 has a similar polish, but is much shorter and less slender. It came from Geneva. Fig. 131 is one of four very long beads from Pompey. It is 5 inches long. Fig. 132 is 4 inches long, and is but one of a number of this size from the same town. They are so closely alike that no more illustrations are needed here.

Much more interesting individually, and often more antique, are the ruder columella beads. Fig. 111 is from the noted Palatine Bridge graves, and from association seems quite early, though its character is less antique. Apparently it was made from Fulgur carica, but a similar bead with it was of Busycon perversum. There were also shells of Melampus bidentatus, a small marine marsh species. Fig. 110 much resembles these, and was found by the writer on a site on Seneca river, probably not far from 350 years old. Fig. 108 is from a similar site north of the last and just across the river. It was found in 1893. Both these are nearly of the same age and are made of Fulgur carica. Fig. 118 is of the same material, but has a more definite date. It was found at the Onondaga fort west of Cazenovia, and therefore is about 300 years old. It is doubtful whether Busycon perversum had reached that vicinity so early.

The finest columella beads have come from Cayuga county, and

a great age has been claimed for some of these, when found distinct from European articles. As those of the same character occur in recent graves it seems most probable that all are of about the same age, though not proved to be so. The writer detects nothing in the features of the one article which does not apply to the other, but leaves the question of age open for the present. W. W. Adams, now of Union Springs, has long been an indefatigable worker in this field, and to him the writer is indebted for many favors and much aid.

Fig. 135 is a fine and well worked columella bead, found 1½ miles north of Union Springs. It is of Busycon perversum, and there can be no doubt of its modern character. Fig. 262 found on the recent site at Scipioville, seems to be formed from the columella of Sycotypus canaliculatus. Fig. 121 is one of the finest of these beads on record, being 6.8 inches in length. It is from Cayuga county and is made from a large Busycon perversum. Fig. 133 and 134 are of large and polished beads from the St Joseph's mission site near Union Springs. Long beads of Busycon have been found at the same place. Fig. 120 is one of an interesting series from the same place, and is 6.15 inches long. 10 of these Busycon beads were found together in 1887, four of them aggregating 22 inches in length, and the remaining six the same. Many interesting examples might be given from those obtained by Mr Adams, now scattered in various collections. Through his kindness most of the important Cayuga relics have been drawn and described by the writer.

Fig. 119 is a Busycon columella of great interest, because, while ready for use as a bead in other ways, it is unperforated. It is in the Dann collection and is 4.5 inches long. This makes it probable that the later Iroquois derived their large beads, either by war or purchase, directly from the southern Indians, and not from white traders. The latter would hardly have brought unfinished articles to sell to the Senecas; and this may be part of the spoils of a war waged for a century. Beads of this kind were less used by the Mohawks and Oneidas than by the western Iroquois.

Fig. 116 and 117 represent two out of four polished cylindric

beads from Pompey, which are ornamented with encircling grooves. This is a rare feature in shell, though frequent in bone ornaments. Fig. 29 is a polished cylindric bead from Geneva.

There are many small beads aside from the common wampum. The oldest known closely resembling the modern wampum was found by the writer on the fort site west of Cazenovia in 1896. Fig. 261 represents this bead, which seems of Indian work, but possibly bored with metallic tools. The perforation is large, but nearly uniform. Fig. 81 shows another small, polished bead from this site, about double the length of the last, and also made from a small columella. Though the date of these is about 1600, A. D. they suggest some contact with Indians already having European tools. Fig. 260 is from Oneida Castle, resembling others except in its truncate form. Fig. 85 is elliptic in outline and comes from Munnsville. Fig. 259 is similar but more pointed. It is from Indian hill, Pompey. Fig. 258 was found by the writer at the same place, as well as fig. 82, which is constricted in the center, much like a dumb-bell. This was obtained in 1893. These five are all recent beads. Globular forms are found, but the council wampum was that commonly used. The next two are also recent. Fig. 265 is a fine angular form from the town of Venice. Fig. 267 is also angular, but quite flat. It is from the McClure site, Ontario county.

Runtees

Mr Holmes considers the large and familiar disks, so widely distributed, beads rather than pendants. He is correct in this, for several strings of these have been found just as they were deposited with the dead. The strings had decayed, but the ornaments were undisturbed. H. R. Schoolcraft described these in his *Notes on the Iroquois*, p. 233. He said of one kind, that "this article is generally found in the form of an exact circle, rarely a little ovate. It has been ground down and repolished, apparently, from the conch. Its diameter varies from $\frac{3}{4}$ of an inch to 2 inches; thickness, $\frac{2}{10}$ in the center, thinning out a little toward the edges. It is doubly perforated. It is figured on the face and its reverse with two parallel latitudinal and two longitudinal lines crossing in its

center, and dividing the area into four equal parts. Its circumference is marked with an inner circle, corresponding in width to the cardinal parallels. Each division of the circle thus quartered has five circles with a central dot. The latitudinal and longitudinal bands or fillets have each four similar circles or dots, and one in its center making 37. The number of these circles varies, however, on various specimens. In the one figured there are 52."

The form described by Schoolcraft is usually indented at the edge, where each perforation begins, and the cross lines are sometimes omitted. The small circles and dots have no meaning, the number being regulated by the space to be occupied. They were apparently made by a small circular steel drill, having a central point. The cross lines seem merely ornamental. As compasses were used in other forms, it is probable that these ornaments were made by white men for the Indian trade, and they may be the round shells used as presents in one New York council. The parallel holes from edge to edge served to keep the necklace flat when strung, and this feature is frequent in pipestone ornaments. These disks have been found in New England, New York, Ohio, New Mexico and many intermediate points, having been first used late in the 17th century. In New York they disappeared when silver ornaments came into fashion; and Mr Schoolcraft said that the Indians had no traditions concerning them. We are not in the dark, for their occurrence in graves shows their precise use and age. They had a later use westward. Lieut. Whipple procured a necklace in New Mexico in which were three of these ornaments.

Beverley, in his *History of Virginia*, p. 145, calls these runtees, and says "they are made of the conch shell, as the peak is, only the shape is flat and like a cheese, and drilled edgeways." Beverley wrote in 1722, when the Iroquois had generally abandoned these for silver ornaments, but they might be used longer near the seashore. While American in origin, the New York specimens were not aboriginal, nor can we assign them any early date in the matter of double drilling, which was continued in many of the recent ornaments of red slate and pipestone that succeeded them, or were contemporaneous.

Mr Schoolcraft gave this shell ornament the fanciful name of *nabikoáguna antique*. In continuation of the account quoted he adds some notes of value. "This article was first detected many years ago, in a medal, one and a half inches in diameter, found in an ancient grave on the Scioto in Ohio. . . Its occurence the present year in the ancient fort grounds and cemeteries of Onondaga, identifies the epochs of the ancient Indian settlements of Ohio and western New York, and furnishes a hint of the value of these investigations. A medium specimen was examined in the possession of I. Keeler, jr, Jamesville; another of the minimum size, at James Gould's, Lafayette. The largest specimen seen is one sent by J. V. H. Clark, from Pompey and Manlius." He adds that this ornament must be referred to the era preceding the discovery. Elsewhere he gives a figure of one from Sandusky, Ohio. The places to which he alluded above in Onondaga, under several names, were occupied in 1654 and 1696. In the next century many of the Iroquois went to Ohio to live, settling at Sandusky and near the Ohio river, where they carried their valued ornaments. Out of a large number of New York specimens a few examples are given.

Eight runtees from Pompey, which are in the Bigelow collection, are represented by reduced figures on one plate. Fig. 199 has but a trace remaining of the design. It shows plainly the brown matter adhering to the surface, and the frequent protuberance between the two holes. Fig. 199*a* shows circles and dots, and fig. 199*b* had the cross and dots. Fig. 201 is broken through one of the perforations, and has the frequent six-pointed star. This has also cross bars on the rays of the star, but they all slope, instead of being parallel with the outer circle, as is usual. Fig. 202 has also dots and circles, but is broken. Fig. 203 shows hardly a trace of the design. Fig. 205 has the star or flower divided in the usual way. Fig. 211 is also one of the larger ones showing rings and a star.

Fig. 147 is a small and plain one from Munnsville, which is less circular than most, though but few are exact in this way. One broad indentation on either side of the border shows where the holes are. Fig. 146 is a pretty example from Cayuga county, with

the cross, circles and dots. Fig. 253 is also from a recent Cayuga grave, in which several were found of rather rude character. In this the dots are irregularly disposed. Fig. 253*a* is from the Onondaga site of 1696. As it is thinner than usual, and shows no ornament, it may have been worn down. Both these are reduced in the plate. Fig. 148*a* is from Pompey, having a design of large and small circles. Fig. 143 is ornamented with a cross of small circles, and comes from the Dann farm, Honeoye Falls. Fig. 161 has concentric circles and two rows of dots. It is from the McClure farm, and belongs to Irving W. Coats, of Shortsville (N. Y.) who has many specimens. The most remarkable form of all is shown in fig. 138, from the Onondaga fort of 1696. In outline it is symmetric, but much like the early banner stones. Fig. 156, 157, 158 and 159 are common forms from Pompey. Fig. 157 has more points than usual. Fig. 160 is one of a number in the state collection, found together in Ontario county. It has the rare feature of a deer in the center.

One remarkable example of the runtee is in the Toronto collection, and is represented in the *Annual archaeological report* for 1897-8 by fig. 30. It has not the cross, but three concentric circles have been described with compasses from the center of the circular shell. Two rows of small circles and dots are on either side of the middle circle, which were evidently made with a metallic tool. From eight points near the edge of the disk two half circles have been swept, and outside and inside of the outer line are extremely small circles or large dots following its curve. There are the usual indentations of the edge where the two perforations occur. It is about 2 inches in diameter. David Boyle, in describing this said: "The three concentric circles in the middle and the arcs on the margin have been described from central points by means of something answering the purpose of compasses, as have also the smaller circles surrounding the dots. The pattern has been carefully laid out and as accurately worked out." It may be added that the various ornaments on a series of these articles, show plainly the use of compasses. This one was found in the old Huron country, and their general distribution makes it possible that they were of French rather than Eng-

lish or Dutch manufacture at first. Those made by the Virginia Indians were almost an inch across and one third of an inch thick, illustrating the advantage of better tools in making larger ornaments by their comparative rudeness

Other articles

Pendants. Pendants made from spiral shells are not common. Fig. 15 is of one found on a village site near Baldwinsville by the writer, and closely resembles one from Florida, figured as a sinker, by Dr Rau. The outer whorl has been cut away and the lip notched. A groove has also been made for suspension. Fig. 16 has been worked still more, forming a groove at each end. This is from Brewerton. Fig. 12 is less changed, but is perforated at the base for suspension. It was found by Dr A. A. Getman of Chaumont, at a camp near St Lawrence village. All these are prehistoric, but the first may be 350 years old. Fig. 28 is of a fossil bivalve from Seneca county, and the beak is perforated for suspension. Fig. 114 is an olive shell pierced for use. This and a much larger one were found in a stone grave near Beaver lake, a little west of Baldwinsville. Three large spearheads were with them, and all must have been quite old. Fig. 124 is a disk pendant from Honeoye Falls. Fig. 44 to 56 are mostly pendants figured in Schoonmaker's *History of Kingston*. They are probably reduced, and may have been about the size of two similar articles in fig. 166 and 168, which are from Honeoye Falls. Fig. 149*a* is a pendant from the Onondaga fort of 1696, as given by Schoolcraft. Fig. 144*a* is a doubly perforated and grooved ornament from Honeoye Falls, and was probably a pendant. Fig. 80 is from Cayuga, and its use is more doubtful. Most of the 10 countersunk indentations end in a small perforation, and it is also grooved. Fig. 64 is a shell cross from Pompey. There are dots at the ends of the arms, and others in the form of a cross. These were encircled with small rings, now worn away. It is in the Bigelow collection.

The Cayugas used pieces of turtle shell for pendants. Fig. 148 and 149 are of that material, and came from Union Springs. Fig. 153 has but one perforation instead of two, and was found with

others south of Genoa village. Fig. 154 is a young turtle shell, neatly perforated, which came from one of the earliest Mohawk villages, the one in Ephratah.

Fig. 23 and 24 came from a cache of chipped shells otherwise unworked, found in Lindley, Steuben co. All were pieces of marine bivalves and of about the same size. They may have been intended for either pendants or disk beads. This is the only cache of the kind reported. Fig. 140 is of a neatly cut shell from Brewerton, designed for some unfinished ornament. Fig. 264 is a pendant from the town of Venice, somewhat cordate in form. Fig. 142 may be an unfinished pendant, now unperforated. It is from Honeoye Falls.

Rings. Bronze rings were so abundant that few were made of shell. Fig. 144 shows a fine signet ring from Cayuga, and fig. 51 and 52 smaller and plainer ones from Ulster county.

Masks. Masks were usually of stone or bone, but Mr Tooker has a small shell mask from Sag Harbor. Fig. 139 is from one given by Schoolcraft, and found at the Onondaga fort of 1696. Fig. 126 is larger, and is in the Dann collection. It is of about the age of the last.

Pins. W. H. Holmes, on page 213 of *Art in shell*, speaks of the pins fashioned from the columellae of large seashells as requiring much labor and skill. In his experience three fourths of these were made from the Busycon perversum, and Tennessee was the great storehouse for these and other ancient articles of shell. These pins are quite rare in New York, and those thus far found are of the latter part of the 17th century. Two are here figured which came from a recent village west of Honeoye Falls, supposed to have been occupied by the Senecas about the time of De Nonville's invasion in 1687. It affords abundant European articles, council wampum, bone combs and shell ornaments. These pins are shown in fig. 78a and 79. In examining them the writer did not identify the shell or part of the shell used in the second pin, as it was so much worked as to obliterate any striking features. The first is of Busycon. Nothing of the kind has been reported from any earlier site; and these may be the trophies of some Seneca

war party, gained from a southern tribe. The point of importance is that these shell pins were in use after the New York colony passed into English hands. One curious pin in the Toronto collection has some features of a remarkable shell article in Mr Dann's collection at Honeoye Falls, but the former was evidently a pin, while the use of the latter is doubtful. Fig. 145 shows this, which is much in the form of a short-handled ladle. The perforation suggests a suspended ornament.

Knives. The shells of Unio complanatus are abundant on some early Iroquois sites, being the favorite species for food, and occasionally one has been perforated. The writer found a shell of Unio rectus on an Oneida site, nearly 30 miles from where the mollusk lived, and this might have made a good knife but showed no signs of use. It is certain such shells were used in this way, but they needed little preparation. A captive to the Iroquois in 1639, secretly "picked up a shell which she found on the strand, put it away without saying a word, and in the night, every body being asleep, she softly cut her bonds with this shell, and fled away by stealth into the forest."—*Relation*, 1639

The *Relation* of 1647 has a full account of Father Jogues, including his first captivity among the Mohawks in 1642. After his left thumb had been cut off, the missionary adds, "they used a shell or an oyster shell (*d'vne coquille ou d'vne escalle d'huitre*) to cut off the right thumb of the other Frenchman, in order to cause him more pain." Jogues seems in doubt as to the kind, and probably gave little heed to this in his sufferings. An oyster shell would hardly have been looked for so far up the Mohawk river, and, as the river was less than a mile away, it was probably one brought to the village for food. The incident shows that the use of shells as knives was familiar.

Kalm, in his *Travels into North America*, 1772, 1 : 341, says that the Indians of New Jersey used some sharp and hard stone for a knife, or were satisfied "with a sharp shell, or with a piece of bone which they had sharpened." The Indian feast prepared far up the river for Henry Hudson is well known. Among other palatable things they "killed a fat dog, and skinned it in great haste with shells

which they had." These were picked up anywhere, and were naturally sharp enough for most purposes, but occasionally some alteration may be detected. A few such examples are in the Toronto collection, which seem to be scrapers.

But one article directly suggesting a shell knife has come to the writer's notice in New York, and this is in Mr Hildburgh's collection. Fig. 87 represents this. The perforated Unio rosaceus from the Waterburg fort, shown in fig. 11, may have been either knife or ornament. The same may be said of the perforated Unio complanatus, fig. 13, from a site near the Mohawk river. Bivalves were also used as tweezers, in extracting hair; and large shells were employed as hoes.

Gorgets. After speaking of the runtees or small disks, Beverley (p. 196) describes a larger article, saying: "Of this shell they also make round tablets, of about 4 inches in diameter, which they polish as smooth as the other, and sometimes they etch or grave thereon circles, stars, a half moon, or any other figure suitable to their fancy. These they wear instead of medals before and behind their neck." About the beginning of the 18th century the English began giving silver medals to the Indians of New York, and the shell gorgets almost disappeared. The southern Indians, being of less account, got no medals for a long time.

Lafitau, in his *Mocurs des sauvages Ameriquains,* p. 61, said: "The collars which the savages sometimes wear around the neck are about a foot in diameter, and are not different from those which one now sees on some antiques, or the necks of statues of barbarians. The northen savages wear on the breast a plate of hollow shell, as long as the hand, which has the same effect as that which was called *bulla* among the Romans." Kalm, in his *Travels into North America,* 1772, 2:320, after describing the shell beads of the Hurons near Quebec, adds that some "have a large shell on the breast, of a fine white color, which they value very high and is very dear." It is possible that the shells, mentioned with the wampum pipes and round small shells as English presents for the *Dionondadies* in 1702, may have been something of this kind, as shell gorgets were then used in New York, and a few survive.

An Indian model in the national museum shows how these gorgets were worn, with the concave side outward. A string or knotted cord, drawn tight through the holes, would keep them in position, and it is probable that the stone gorgets were similarly fastened to the clothing as ornaments. Mr Holmes figured (pl. 50) a large, keystone-shaped shell gorget of the historic period, from an ossuary of the Neutrals in Canada West. It has four holes and the four edges are slightly convex. The number of holes varies much. In New York such gorgets may be either of bone or shell. They were too conspicuous to be easily lost, and their number is not large. All which are made of shell are recent, but some of bone are earlier. They are either plain or very slightly ornamented as compared with those of Tennessee, which often have fine carvings and grotesque groups suggestive of Mexican work, and even of Buddhist mythology. A few Canadian shell gorgets in the Toronto collection are also plain, and two of these are very long. In the report of that collection for 1899 is a fine engraved one, which has been recut and is now half the original size, being now 4.5 by 2 inches. At first it was oval, but one side is now straight, and two holes are near this and two more near the convex margin.

Fig. 208 is a reduced figure of the largest shell gorget yet reported in New York. It is in the Bigelow collection and came from Pompey, being made from the outer whorl of a large shell. The diameter is 5.25 inches. The shell was dead and somewhat eaten, which may account for its lack of ornament. There are two small perforations. Fig. 209 is a much smaller one from the same town, which has been much corroded since it was used. It is over 3 inches wide, and has two nearly central holes, with another begun between them. The inner ornaments are circles, points and dots, with some indefinite grooves on the convex surface. Fig. 155 produces this in full size, to show more clearly the interior design. There have been vague reports of other engraved shells in that town, but as far as the writer knows this is the only engraved shell gorget yet found in New York. Morgan figures a later form. Those described below are of actual size.

Fig. 122 is a plain gorget from Mapleton, or East Cayuga, hav-

ing three holes and the beginnings of two more. Fig. 128 is of rather large size, of a generally elliptic form, and one long edge is nearly straight. On the other edge two holes approach the margin. This and the next are from Venice. Fig. 123 has a pyriform outline and two perforations. It is smaller than the last. Fig. 165 is a fine one from Cayuga, half an inch deep and having one hole. Fig. 163 is of an oval form, with two holes at the broad end, and comes from Pompey hill. All Onondaga specimens seem of the 17th century, but some may be later.

These were not rare on the modern site on the Dann farm, near Honeoye Falls. Fig. 162 is the largest found there, being 3.3 inches across. It has two sloping holes, the slope possibly coming from use. These are quite far apart, and there may have been a third where a piece of the shell has been lost. Fig. 164 is from the same place, has two large holes, and is 1.9 inches wide. Fig. 164*a* also belongs to this site and is 2.15 inches long, being about as irregular as the last, though nearly circular. It has two very small holes, quite close together. Another from this place is of about the same form and size, but is unperforated. These four are in Mr Dann's collection. Fig. 210 is also unperforated, but is of very neat workmanship, and is in the Bigelow collection. Like all others it was made from the whorl of a large shell, and is somewhat elliptic in outline. In the figure it is reduced, being 1.6 inches long. It was found near Baldwinsville. The actual size appears in fig. 167.

These sufficiently represent the ordinary shell gorgets of New York, all but one reported being plain. There are similar but smaller ornaments of turtle shell.

It may be added that Joseph Brant's large shell gorget was long preserved in his family, and that there is an old picture of him with this attached below the throat. It had two holes for this purpose, and was quite like those used by the Onondagas in recent times.

Miscellaneous

From M. R. Harrington, by kind permission of Prof. F. W. Putnam, has come an account of the aboriginal shell objects in the American museum of natural history, in Central park, New York.

A note said, "The museum's collection of local shell objects is very small, though there are several specimens of the classes shown in nos. 3, 4, 6, 7 and 9." The list was accompanied by photographs of the articles, and is quoted in full, with some comments by the writer.

"1 Carved Unio shell from ancient rock shelter near Armonk, Westchester co. N. Y." This has been cut into a long pentagon, in the upper part of which is a slightly elliptic and neat indentation, nearly an inch across. Part of another appears on the narrow margin below, making it probable that the ornament has been broken and cut down. Its character suggests the use of metallic tools.

"2 Scraper of oyster shell from another shelter in the same vicinity." This is quadrilateral and well worked.

"3 Broken shell pin or awl from shell heap in Pelham Bay park, N. Y. city." A long and rude article, apparently a pin.

"4 Two shell beads from ancient grave at Tivoli on the Hudson. Copper beads were also found." These are short cylindric beads, with the diameter greater than the length, and are of an antique type which came down to very recent times.

"5 Oliva shell, with spire broken to facilitate use as bead. Shell heap in Pelham Bay park, N. Y. city." Much weathered, and with lateral perforation. It is a southern shell.

"6 Five Olivella shell beads. Part of a lot numbering more than 100, found in ancient grave at Tottenville, Staten Island. With copper stains." One of the five is Nassa obsoleta; another seems to be Littorina rudis; both local species. The other three are Marginellas from the south.

"7 Perforated oyster shell from prehistoric village site at Port Washington, L. I." A large and rude perforation.

"8 Implement of oyster shell from ancient fire pit at same place." This resembles a long and rude awl.

"9 Perforated shell of Busycon carica, Gmelin, found buried with a dog in a fire pit at same place." A large perforation in the outer whorl. The base has been cut off, and nodules ground down.

"10 Clam shell (mercenaria) used as a scraper. From

ancient village site at Van Cortlandt park, N. Y. city." Lower margin battered.

"11 Worked clam shell (mercenaria) possibly a spoon. From ancient shell heap at Throggs neck, N. Y. city." The upper and anterior margins are both cut down; the latter very much so. The unworked form would have been as serviceable as a spoon, but it may have been used in this way. It may be added that marine shell heaps are of very uncertain age, white men often feasting on those begun centuries before.

Wampum keepers

In discussing wampum at another time the writer had occasion to speak of Mr Morgan's statement in the *League of the Iroquois*, p. 65, where he says that *Ho-no-we-na-to*, of the Onondaga Wolf clan, was hereditary keeper of the wampum. Captain George, who long bore this principal chief name, never had anything to do with the belts. Thomas Webster, or *O-ya-ta-je-wah*, who held them till his death, was a Snipe. Abram La Fort, or *Te-at-gah-doos*, from whom he received them, was a Bear. John Buck, or *Skan-a-wah-ti*, the Onondaga Canadian wampum-keeper, was a Turtle. David Zeisberger was adopted into the Onondaga Turtle clan in 1745, and the keeper of the wampum thus became his foster brother. At a later day Zeisberger kept the wampum himself. The truth is, it was a question of convenience and ability. Even at the time Morgan wrote, *Ho-no-we-na-to* did not keep the belts, nor have his several successors held them.

In regard to belts belonging to the confederacy, the Onondagas were the keepers as a matter of convenience, but they did not control those belonging to other nations. These gave, received and kept belts as they pleased. Of late it has been supposed that there were wampum-keepers for both the Elder and Younger Brothers as bodies, but the writer knew well both the reputed keepers, and there seems to have been but one recognized office of the kind. Many Indians long had wampum of their own, and a few have a little even now.

Conrad Weiser made a quaint note, July 20, 1747, about a Del-

aware chief: "*Olumapies* would have Resigned his Crown before now, but, as he had the keeping of the public treasure [that is to say, the Counsel Bagg] Consisting of Belts of Wampum, for which he buys Liquor, and has been Drunk for this two or three years, almost Constantly, and it is thought he wont Die, so long as there is one single wampum left in the Bagg."—*Penn.* 1:762

Weiser made another note at Onondaga, Sep. 16, 1750, which shows that the wampum-keeper was probably not restricted to a single clan. *Canassatego* had died, being the speaker but not the *To-do-da-ho*, or head chief. "I was told by *Tahashronchdioony*, the Chief, that all the Belts of Wampum belonging to the Publick from the several English Governors that remained unanswered at the Death of *Canassatogo*, and found in his Possession, were by his orders burned[1] with him. This the said Chief said to make *Canassatogo* a Thief after his Death; some imagine that his Widow and Family took them."—*Penn.* 5:480

In this case it is probable that the Onondaga speaker held the belts till they were accepted, after which they would be divided or retained according to the action of the council. It should always be remembered that even in the grand council belts might be given to any one nation, and retained by it.

Belts

Making. The accounts we have of the making of early belts are conflicting, leading us to suppose they were not all alike. In his *Narrative of the Indian wars in New England* Hubbard says: "They are woven as broad as one's hand and about 2 feet long. These they call belts, and give and receive at their treaties as seals of their friendship." Loskiel says, p. 26: "Four or six strings joined in one breadth and fastened to each other with fine thread, make a belt of wampum, being about 3 or 4 inches wide and 3 feet long, containing perhaps four, eight or twelve fathom of wampum, in proportion to its required length and breadth. This is determined by the importance of the subject which these belts are intended either to

[1] The word burned in Weiser's account was evidently intended for buried.

explain or confirm, or by the dignity of the persons to whom they are to be delivered." Though belts might be made in this way, they would not have the width mentioned, as six strings laid side by side would not give a breadth of one inch. Lafitau's account is better. "The belts are large bands, in which little white and purple cylinders are disposed in rows, and tied down with small thongs of leather, which makes a very neat fabric. . . The usual belts are of eleven rows of 180 beads each." Carver said: "Being strung on leather strips and several of them sewed neatly together with fine sinewy threads, they then compose what is termed a belt of wampum." This is reversing the mode, as no strip of leather would pass through the small aperture. Yet Charlevoix gave much the same account in his 13th letter, in describing branches and collars. "The branches are no more than four or five threads or small straps of leather, about a foot in length, on which the grains or beads of wampum are strung. The collars are in the manner of fillets or diadems formed of these branches, sewed together with thread, making four, five, six or seven rows of beads, and of a proportionable length; all which depends on the importance of the affair in agitation, and dignity of the person to whom the collar is presented." This seems far from the truth.

In his *League of the Iroquois*, L. H. Morgan said:

"Belts were made by covering one side of a deerskin belt with these beads, arranged after various devices and with most laborious skill." No such belts are known, but it is probable that the early quill belts were of this nature, if their existence is allowed.

Mr Morgan gave a better account the following year, when he said: "The most common width was 3 fingers or the width of 7 beads, the length ranging from 2 to 6 feet. In belt-making, which is a simple process, eight strands or cords of bark thread are first twisted from filaments of slippery elm, of the requisite length and size; after which they are passed through a strip of deerskin to separate them at equal distances from each other in parallel lines. A splint is then sprung in the form of a bow, to which each end of the several strings is secured, and by which all of them are held in tension, like warp threads in a weaving machine. Seven beads, these making the intended width of the belts, are then run upon a thread by means of a needle, and are passed under the cords at right angles, so as to bring one bead lengthwise between each cord

and the one next in position. The thread is then passed back along the upper side of the cords, and again through each of the beads; so that each bead is held firmly in its place by means of two threads, one passing under and one above the cords. This process is continued until the belt reaches its intended length, when the ends of the cords are tied, the end of the belt covered and afterwards trimmed with ribbons. In ancient times both the cords and the thread were of sinew.

This is a good account in general of the making of the belt prepared for Mr Morgan at Tonawanda in 1850, and shown in fig. 241, but it has decidedly modern features. In most of those seen by the writer the long strands were of buckskin and the edges neatly braided or twisted. Common twine was sometimes used, but no ribbons. The simple mode described of placing the beads is correct.

Loskiel, p. 27, said that " the Indian women are very dexterous in weaving the strings of wampum into belts, and make them with different figures perfectly agreeing with the different subjects contained in the speech." An instance appears in the report of the council in Easton in 1756, which was concluded before one important belt was ready. "Here the Governor gave the new belt as far as it was made, and all the wampum prepared for it." He explained the proper figures "& desired the women might finish it on rainy days, or resting in their Journey."—*Penn. Minutes*, 7:218

White men sometimes made belts. In the journal of John Hays it appears that he was at Wyoming, May 13, 1760. Being detained there by bad weather, he "wrought at Makeing Belts and Strings of our Wampum." He also made these entries: "14th. Very Rainy Wether, so that we Could not set out, So we followed our old Business of Belt making." "15th. Wether the Same, so that we wer Oblidged to Ly by as Before and Mad Belts."—*Penn.* 3:735. But for the unwelcome rain, we might not have known of this.

On the whole it is probable that many early ornamental belts and collars were differently made from those which now remain. They may have been much like those examples of mere ornament from our own and other lands to be seen in our national museum, neatly arranged in patterns but in several different ways. For some of these a variety of sizes might produce the best effect. Sometimes

the early writers give hints of this diversity, but in general any thing about the body was a belt, anything around the neck a collar. They used comprehensive terms. Thus when we are told that the Hurons bet collars of porcelain on the game of lacrosse in 1636, we need not think of the wampum belts we have seen. When the *Nipissiriniens* six years later gave presents of collars and scarfs of porcelain at their feast of the dead, both may have been made of large shell beads. They probably were, as the small council wampum was not showy, but made with a definite end in view.

These remarks apply to the famous dress of King Philip. In the account of his death quoted by S. G. Drake, in his *Biography and history of the Indians of North America*, 1:54-55, we are told that *Annawon* "took out of his pack a beautifully wrought belt which belonged to Philip. It was 9 inches in breadth, and of such length as, when put about the shoulders of Captain Church, it reached to his ankles. This was considered at that time of great value, being embroidered all over with money, that is wampum peag, of various colors, curiously wrought into figures of birds, beasts and flowers. A second belt of no less exquisite workmanship was next presented, which belonged also to Philip. This the chief used to ornament his head with, from the back part of which flowed two flags, which decorated his back. A third was a smaller one, with a star upon the end of it, which he wore upon his breast. All three were edged with red hair, which *Annawon* said was got in the country of the Mohawks." These belts evidently had a foundation on which curious patterns were embroidered with shell beads.

Josselyn's description also conveys the same idea. It will be found on pages 142-43 of his *Account of two voyages to New England*, with kindred matter.

Their beads are their money, of these there are two sorts, blew Beads and white Beads; the first is their Gold, the last their Silver, these they work out of certain shells so cunning that neither *Jew* nor Devil can counterfeit, they dril them and string them, and make many curious works with them to adorn the persons of their *Sagamours* and principal men and young women, as Belts, Girdles, Tablets, Borders for their womens hair, Bracelets, Necklaces, and links to hang in their ears. Prince *Phillip*, a little before I came for *England* [1671] coming to *Boston*, had a coat on and Buskins set

thick with these Beads in pleasant wild works, and a broad Belt of the same, his Accoutrements were valued at Twenty pounds.

This was embroidery, much like modern Indian beadwork, and appears in early pictures of King Philip.

That council belts were much the same as now at an early day will appear from fig. 282, a reproduction of La Hontan's picture of De la Barre's council at La Famine in 1684. It is from the second English edition, published in 1735. Fig. 255 also represents an early belt of 1711, taken from the picture of "*Fee-yee-neen-ho-ga*, Emperor of the Six Nations," painted from one of the four Mohawks then in England. The belts are like those of the present day.

Reading. Heckewelder, p. 107-8, gives an interesting account of the periodical reading of wampum.

For the purpose of refreshing their own memories, and of instructing one or more of their most capable and promising young men in these matters, they assemble once or twice a year. On these occasions they always meet at a chosen spot in the woods, at a small distance from the town, where a fire is kindled, and at the proper time provisions are brought out to them. There, on a large piece of bark or on a blanket, all the documents are laid out in such order, that they can at once distinguish each particular speech, the same as we know the particular contents of an instrument of writing by the indorsement on it. . . Their speaker then, who is always chosen from among those who are endowed with superior talents, and has already been trained up to the business, in an audible voice delivers, with the gravity that the subject requires, the contents, sentence after sentence, until he has finished the whole on one subject. On the manner in which the belts or strings of wampum are handled by the speaker, much depends; the *turning* of the belt which takes place when he has finished one half of his speech, is a material point, though this is not common in *all* speeches with belts; but when it is the case, and is done properly, it may be as well known by it how far the speaker has advanced in his speech, as with us on taking a glance at the pages of a book or pamphlet while reading; and a good speaker will be able to point out the exact place on a belt which is to answer to each particular sentence, the same as we can point out a passage in a book. Belts and strings, when done with by the speaker, are again handed to the chief, who puts them up carefully in the speech bag or pouch.

In describing the use of one by the Indians and Sir William Johnson, John Long said that it was of many rows, black at the sides and white in the middle. This signified the path of peace, and

a white diamond in the center the council fire. In reading it, the baronet held one end and the Indian chief the other. When the latter spoke, he moved his finger along the white line. When Sir William spoke, he touched the diamond in the midst of the belt.

Heckewelder, p. 109, treats quite fully of the colors and emblems of belts, and adds something on wampum as credentials, a character which still survives. "No chief pays any attention to *reports*, though they may carry with them the marks of truth. . . But as soon as he is officially informed, through a string of wampum from some distant chief or leading man of the nation, whose situation entitles him to receive credit, he then will say, 'I *have* heard it,' and acts accordingly."

In the *Relation* of 1653, p. 27, we are told how a New England chief had his presents spread out, which were mostly of wampum. Standing by them, "he gave the explanation of them as one would do of an enigma, touching the characters on the picture one after another." Each had its proper meaning.

Loskiel's account, p. 26, is much like that of Heckewelder.

At certain seasons they meet to study their meaning, and to renew the ideas of which they were an emblem or confirmation. On such occasions they sit down around the chest, take out one string or belt after the other, handing it about to every person present, and that they may all comprehend its meaning, repeat the words pronounced on its delivery in their whole convention. By these means they are enabled to remember the promises reciprocally made by the different parties; and it is their custom to admit even the young boys, who are related to the chiefs, to their assemblies; they become early acquainted with all the affairs of the state; thus the contents of their documents are transmitted to posterity, and can not easily be forgotten.

For a long time this practice has been discontinued, and the belts were only produced to satisfy curiosity. In most ceremonies strings alone were used, and the knowledge of the proper use of some of these was and is confined to a few persons. Horatio Hale's picture of the reading of the wampum belts was one arranged for his convenience and pleasure, not a record of an ordinary occurrence. In fact treaty and war belts had nothing to do with modern ceremonial gatherings.

Lettered. Belts with letters on them obviously had a civilized origin, and were often made by Indians to whom the design was given. Animated by religious zeal, and naturally liberal in their gifts, the poor Huron exiles near Quebec devised such a belt in 1654. It was an offering to the Virgin Mary by the first congregation of Notre Dame in the Huron colony. They had small means, but collected several hundred beads and formed of these a belt. On a ground of white wampum black beads made the words *Ave Maria gratia, plena.* This was accompanied by a Huron letter on birch bark, dictated by the Indians and written by the priests. Both were sent to Paris, where later belts found their way. The same colony sent a belt to Chartres cathedral in 1679, which was 4 feet 9 inches long, and 2.75 inches wide. On a foundation of white beads were black letters reading *Virgini parturae votum Huronum.* This belt was bordered with embroidery of red porcupine quills.

The writer of the *Relation* of 1683-4 was enthusiastic over the *Abenakis* mission, in the chapel of which was a figure of St Francis de Sales:

> There was placed below the image of the saint a very large porcelain collar, adorned with porcupine quills. . . It is the most beautiful collar I have seen made here. . . Tall Jeanne, who made the whole collar and colette, who set the porcupine quills in it, has done so with a great zeal of honoring the saint. The inscription on the collar is: *S. franc salisio Abnaq. D.* (*Sancto francisco salisio Abnaquiis Donatum*).

W. L. Hildburgh has furnished the writer with descriptions and sketches of some wampum belts in Europe. Of one in the museum of the Propaganda in Rome little could be learned. Four are in the Trocadero palace in Paris, all of which are Huron. One is 12 beads deep and about 200 long, but is broken at both ends. The black letters on the white ground read, VIRGIN. IMMAC. HVRD. D. This has been figured in *Galleric Americaine du musée ethnographie du Trocadero*, with three others. Fig. 271 shows this as drawn from the photograph by Mr Hildburgh.

A small number of lettered belts appeared in the English colonies much later. Gov. Burnett gave one to the Six Nations at Albany in 1724, on which were the letters G. R., for King George. An-

other had G. P. W., for George, Prince of Wales. A third had P F., for Prince Frederick. A more striking example is that of the great belt given at Easton by the governor of Pennsylvania in 1757. Peace had been concluded with *Teedyuscung* and the Delawares, and the Five Nations had approved of the terms, having sovereign power over the Pennsylvania Indians. In confirmation of the treaty Gov. Denny "gave a very large belt with the figures of three men in it, representing His Majesty King George taking hold of the 5 Nations King with one hand, and *Teedyuscung* the Delaware King with the other, and marked with the following letters and figure: G. R. or King George 5 N five Nations and D. K. Delaware King." A curious belt was shown by *Teedyuscung* a little before this. It was "a Short, broad Belt of White Wampum, having in the Center two Hearts of a Reddish Colour, and in Figures, 1745. . . The Belt had a round Circle Pendant, representing the Sun."—*Penn. Minutes*, 8:217. This ornament may have been a flat, metallic ring. The belt was given to the Wappingers by the government of New York. Between the numerals 17 and 45 were two small ornaments. One other belt must have been inspired for the occasion. Preparations for the siege of Fort Niagara were in progress, and Johnson held a council. At this the Six Nations presented him "a Belt with the Figure of Niagara at the end of it, & Sir William's name worked thereon." Of course the baronet thanked them and expressed his satisfaction at their readiness for the work. This was in 1759, and Fort Niagara soon fell. Belts of this character were not common, the Indians preferring symbolic figures, such as they had known from early days. Another of Johnson's lettered belts is elsewhere mentioned, and also one probably presented by Gov. Simcoe, now in the national museum. This appears in fig. 269.

Emblematic. The earliest emblematic belt of which we have any distinct account was presented at Quebec in 1653 by an Indian chief from New England. He spread this out saying:

"This is the road that it is necessary to keep in order to come to visit your friends." The collar was composed of white and violet porcelain, so that there were some figures which this good man ex-

plained in his fashion: "There," said he, "are the lakes, here are the rivers, here are the mountains and the valleys that it is necessary to pass. Here are the portages and waterfalls."—*Relation*, 1653. He had meanings for all his other belts but they contained no figures.

There has been a disposition to consider an existing Onondaga belt as one presented by Chaumonot in 1655, but there is little ground for this. Had the one he gave at that time contained such figures, they would certainly have been described. It happened that Father Le Moyne went on an embassy to the Mohawks in the autumn of that year, and was warmly greeted by them. He was at once received with three belts and the next day had other rich presents. "The first and most elaborate of these presents was a large figure of the sun, wrought with 6000 beads of porcelain, to the end, he said, that darkness may have no place in their councils, but that the sun may shed his light upon them even in the night." This is not expressly called a belt, but was probably of that nature and wrought in some convenient form.

Very few of these strictly emblematic belts were described in the 17th century. One belt received at Oneida from the French, while Father Milet was a captive there, brought a response which stirred up the colonial authorities. The Five Nations called Milet to Onondaga to write down the message they wished to send to Frontenac with three belts. "The 1st in which there are five black squares on a white ground, indicates the Five Iroquois Nations, who have all unanimously agreed to this embassy from the Iroquois to Kebec. They, therefore, say by this belt: Here we are, Father Onontio, by your invitation, on your mat." Rev. Mr Dellius translated this for Gov. Fletcher, and the commotion subsided. In 1690 the last of 13 belts presented by the Five Nations at Albany had also the five houses on it. It is probable that the Onondaga covenant chain belt of 1682 was emblematic, but no figures are described.

There were frequent quarrels with traders, and the Iroquois often made stringent rules against the introduction of strong drink into their towns. In 1721, many years after they had conquered the Indians of Pennsylvania, "the five Nations had sent down a large Belt of Wampum with the figure of a Rundlet and an Hatchet on

it, to the Indians settled upwards on Susquehanna, with orders to stave all the Rum they met with."—*Penn. Minutes*, 3:154. This vigorous order brought trouble. At Staunton in the same state, in 1736, a white belt of eleven rows had "four black St George's crosses in it."—*Penn. Minutes*, 4:83

A supposed earlier emblematic belt, suggestive of a later date, was seen by Conrad Weiser at Logstown in 1748. He was told that it was given to the Wyandots by the governor of New York 50 years before; and if this could be proved, it might sustain the antiquity of the Penn belt, which has a similar character. Of the one in question Weiser said:

The Belt was 25 Grains wide & 265 long, very Curiously wrought. There were seven Images of Men holding one another by the Hand, the 1st signifying the Governor of New York (or rather, as they said, the King of Great Britain) the 2d the Mohawks, the 3d the Oneidas, the 4th the Cajugas, the 5th the Onondagers, the 6th the Senekas, the 7th the Owandaets, and two Rows of black Wampum under their feet, thro' the whole length of the Belt to signify the Road from Albany thro' the 5 Nations to the Owendaets; That 6 years ago they had sent Deputies with the same Belt to Albany to renew the Frienship.—*Penn. Minutes*, 5:351

The writer finds no records of this later visit. Some Wyandots came to Albany in 1702 to trade, and in the same year a belt was sent to them, possibly this one, but there is no allusion to its character. Some were there in 1723, and received presents but no belts. Allowing the possible identity of the belt, it is strange that the emblems had little use for half a century later. Even then its date would be 20 years later than Penn's first contact with the Indians. It seems better to assign the Penn belt to his second visit at least. Mr Holmes said that "it has an extremely interesting, although a somewhat incomplete history attached to it. It is believed to be the original belt delivered by the *Leni-Lenape* sachems to William Penn at the celebrated treaty under the elm tree at Shackamaxon in 1682. Although there is no documentary evidence to show that this identical belt was delivered on that occasion, it is conceded on all hands that it came into the possession of the great founder of Pennsylvania at some one of his treaties with the tribes that occupied the province ceded to him. Up to the year 1857 this belt

remained in the keeping of the Penn family. In March 1857, it was presented to the Pennsylvania historical society by Granville John Penn, a great grandson of William Penn."—*Holmes*, p. 253-54. So much for its history. In his address on its presentation Mr Penn said its dimensions were greater than those used on ordinary occasions, being 18 rows deep, that the two figures clasping hands signified a treaty, that one of these wears a hat and must be a European, and that its long continuance in the family leaves no doubt of its genuineness. The last is the only strong point. It is a fine but moderate sized belt of less than 3000 beads, shown in fig. 173, and many larger and wider ones are on record in unimportant councils. A treaty is signified, but the supposed hat appears as an undoubted Indian's head on another belt, where similar figures are seen joining hands. Aside from its history there would be no hesitation in placing it in the middle of the 18th century, to which both figures and sloping lines belong. Besides its preservation two other points in its favor may be mentioned. One of these is the relative proportion of purple and white beads, though the Onondaga-United States covenant belt is of the same character in this and other things. The other is that Conrad Weiser described a similar belt in 1748, as already stated, which he was then told belonged to the end of the preceding century. Evidently the Penn belt had never been shown him. However these facts may affect its history incidentally, there can be little doubt it is the oldest wampum belt but one now in America, and it may well be prized as such.

Fig. 171 shows an earlier belt now in the county clerk's office in Kingston (N. Y.) of which a small picture appears in the *History of Kingston*, by Marius Schoonmaker, p. 40. It was given by the Esopus chiefs at a treaty in 1664, and is laid up with the record. There are three gaps in it, and it has no pattern, being made entirely of white beads. It is six rows deep and about 130 beads long.

The style of belts of which the Penn and the Onondaga covenant belt are among remaining examples became somewhat frequent about the middle of the 18th century. The supply of wampum and the use of belts seem to have lessened for a time, but revived won-

derfully under Sir William Johnson. He used both strings and belts with a lavish hand, multiplied emblems and ceremonies, and gave precision to many that were indefinite before. Union, chain, covenant, road, invitation, peace, war, scalp and other belts frequently appear. Belts became as abundant as they were a hundred years before, but often with new names. This pleased the Iroquois greatly, and they often thanked him for reviving their ancient ceremonies. There can be no question that these enlarged under his wise direction.

In his interesting letter to Arthur Lee in 1771, Johnson gives a few particulars regarding belts, of which he had handled and explained hundreds. He said:

As to the information wch you observe I formerly Transmitted to the Gov^{r} of N. York concerning the belt & 15 Bloody Sticks sent by the Mississagaes, The like is very Comon and the Ind^{s} use Sticks as well to Express the alliance of Castles as the number of Individuals in a party, These Sticks are generally ab^{t} 6 Inches in length & very slender & painted Red if the Subject is War but without any peculiarity as to Shape. Their belts are mostly black Wampum, painted red when they denote War, they describe Castles sometimes upon them as square figures of White Wampum, & in Alliances Human figures holding a Chain of friendship, each figure represents a nation, an axe is also sometimes described wch is always an Emblem of War, The Taking it up is a Declaration [of war] and the burying it a token of Peace.

There are other valuable observations on emblems used in other ways, as well as on language and customs in this letter, which will be found in the fourth volume of the *Documentary history of the state of New York.*

In 1756 the Six Nations produced "a prodigious large belt" given them in 1748 when Johnson entered on the management of their affairs. This had an emblem of the Six Nations joined hand in hand with the English. In 1756 the Six Nations presented a large covenant belt which was expressive of the sentiments of the Five Nations. This phrase was used because the Tuscaroras had not the same dignity as the rest. A speech accompanied the exhibition of this belt, which was not delivered to Johnson but was to be sent "to the Senecas, that from thence it may be conveyed

to the remotest nations as an emblem of the happiness we enjoy by our union, at the same time kindly inviting them to come in and join our Covenant Chain." A description of the belt was added. "This Belt was the largest ever given. Upon it was wrought the sun by way of the emblem of Light, and some figures representing the Six Nations. It was intended to signify that they now saw objects in their proper Light, and that they were fully convinced of the truth of every thing proposed."—*O'Callaghan. Colonial hist.* 7:66. At a council at Fort Johnson the following year this belt appeared again. 'The Senecas spread a prodigious large Belt upon the floor of 30 rows broad of Wampum, with a figure of the sun in the middle and the Six Nations at one end. They told Sir William this belt they had made use of to invite some nations of Indians to remove nearer to them and join their Confederacy. That they had sent to all the scattered Indians of the Six Nations to return and live in their own country. That they had sent messages to their several Allies to dispatch Deputies to a Grand Council they proposed speedily to be held at Onondaga, to take their general welfare under serious consideration. That a great quantity of Belts were already arrived at Onondaga," and they thought the council would assemble in July.—*O'Callaghan. Colonial hist.* 7:265

After Sir William Johnson's death in 1774 this belt was produced by the Six Nations at Guy Park. The Onondaga speaker said: "This is the great Belt of union delivered to us before the late war, for the purpose of peace and friendship with the English. . . This great Belt has always lain at our Council fire, but we shall now deposit it with the Senecas, who are the western door of our confederacy, and whom we thereby charge and injoin to look towards us and to follow strictly the resolutions they have now confirmed with us, and to unite strongly therein.—Delivered an extraordinary Belt, near 5 feet long and consisting of 30 Rows of white wampum in breadth, with a figure of Black wampum in it." As will be seen the leading idea of this belt of union was to bring the Indians themselves into greater harmony.

At a council at Johnstown in the autumn of 1774, the Onondaga

speaker, *Teyaxvarunte*, produced "the great old *covenant* Chain" of 21 rows, saying: "Brother. This is the Covenant Chain delivered to the whole Six Nations by our late Superintendant in presence of Commissioners from nine Governments, which we have kept clean from rust, and held fast in our hands." This was the conference of seven colonies at Albany in 1754, when Lieut.-Gov. De Lancey delivered this belt to the Six Nations on their behalf, Johnson being present. The chain belt was then explained in the following manner by De Lancey: "This represents the King our common Father —this line represents his arms extended, embracing all us the English and all the Six Nations—These represents the Colonies which are here present and those who desire to be thought present—These represents the Six Nations, and there is a space left to draw in the other Indians—And there in the middle is the line represented which draws us all in under the King our common Father." Virginia and Carolina desired to be considered present. At a council at Fort Johnson in 1756 the speaker held this up, saying: "HERE is the Covenant Chain Belt given to us by eight different governments in the year 1754. We shall on our side keep our eyes upon it and take care that no rust shall injure it, and it shall never be broken on our side." An earlier chain belt was given by Gov. Clinton in 1746, along with war belts and belts of friendship. In the conference of 1755 the chain belt was called the union belt. Johnson gave another and different chain belt at the treaty of Fort Stanwix in 1768. It was briefly described as "Belt of the Cov^{t} Chain 15 Rows with human figures at each end." A conference with the Six Nations and some of their allies in 1759 made another great belt necessary. After suitable words, Johnson "gave over the Cov^{t} Chain Belt, which was a very large black belt, with the figures on it representing 10 Nations of Ind^{s} & the English."

John Long in his *Travels* alludes to another of the great Indian agent's belts. "The wampum belts given to Sir William Johnson of immortal Indian memory, were in several rows, black on each side and white in the middle. The white being placed in the center was to express peace, and that the path between them was open and free. In the center of the belt was a figure of a diamond made of white wampum, which the Indians call the council fire."

Similar belts were much used in Pennsylvania at this time. In the *Memorials of the Moravian church* it is said that on the occasion of a treaty at Philadelphia in 1757, about 12,000 new wampum beads were brought there, "upon which the Indian women were employed to make a belt of a fathom long and 16 beads wide, in the center of which was to be the figure of a man, meaning the governor of Pennsylvania, and five figures to his right and five to his left, meaning the 10 nations mentioned by *Teedyuscung*." That chief sent several belts to the Indians the next year. A large one had five strings or lines across it of white wampum. A white belt had black strings across and was otherwise set with black beads. Another of white wampum had black beads set across. These seem the earliest of these transverse lines, unless the antiquity of the Penn belt is allowed. This figure soon became common. At a council in Easton (Pa.) in 1761, there were many belts with stripes, bars and diamonds, and the width of each belt is given. Some stripes and bars were sloping. At a council in Philadelphia in 1758, a Seneca chief gave "a Belt, on one side of which are three figures of Men in Black Wampum, representing the Shawnees, Delawares, and Mingos, living on the Ohio. On the other Side Four figures representing the United Councils of the Six Nations in their own Country." At Easton, that year, Gov. Denny gave a large belt with a man at each end, and a string of black showing the road from Ohio to Philadelphia. In 1760 a belt of nine rows and two feet long, showed a road passing through 12 towns. Diamonds did not always represent villages or nations. In 1762 a belt of seven rows had two diamonds to show the councilors and warriors united in council. At Lancaster, that year, the Six Nations gave "a Belt of nine Rows, representing the figures of two Men in the middle, with a Heart between them, & Six Diamonds on each side; one of the men represents the Indians, the other the English."—*Penn. Minutes*, 8:747

A few belts of this kind came from Canada. At a council in 1756, the Onondaga speaker described some French belts received in his town, speaking in his proper place. "Then the said speaker moved his seat and placed himself among the Oneida Chiefs and

produced a White Belt wherein a Chain of Friendship was wrought, the Belt was about a Fathom in length, and a Man worked upon it at each end, signifying the Governor of Canada and the Five Nations, holding each other by the hand in token of Friendship, which Belt the commander of the Party, which destroyed Mr Bull's Fort and party at the great carrying place, gave to an Oneida Indian who was hunting, some distance from said Fort just before it was destroyed."—*O'Callaghan. Colonial hist.* 7:137. The next year the French sent a very long black war belt of 6000 beads to the Six Nations, with an axe worked in the middle. Such belts were frequent, and a similar one with two hatchets was sent by the French at a later day. Among the belts given at a council at Montreal in 1754, one represented "the two villages of the Oneidas, Cayugas and *Kaskarorens*." Two paths on it terminated at a friendly place.

Among later belts may be mentioned one shown by the Shawnees to the Iroquois in 1771, representing them and the Illinois, with 10 confederated tribes between. Besides the great one, other chain belts appear. In 1773 the Six Nations presented a covenant chain belt to Johnson of 11 rows and 12 squares. He returned a black one of 13 rows with white squares. After his death the Oneidas showed a large white belt with black diamonds, which he had given them. Belts of this description have been preserved.

A few post-colonial belts may be mentioned. At a council at the Onondaga village near Buffalo in 1793, a western belt presented was of white wampum "made in a circular form, representing their place of meeting as in the center, and crossed by four stripes of black wampum, representing all their confederates, east, west, north and south." At the same time "the Wyandots spoke with a very large belt with three pictures on it—the Americans at one end, the Six Nations in the middle, and themselves at the other end." While waiting near Detroit for a share in the council at Miami rapids the same year, the United States commissioners gave the Wyandots a white belt with 13 stripes of black wampum.

The rupture between England and the colonies brought out some belts at conferences with the Iroquois. The Oneidas came to Col. Johnson for advice on political troubles and showed a black belt of

nine rows. On this were white letters and figures, W: I. and 1756. The Six Nations afterward met the colonial commissioners at German Flats. This was preliminary to a more important council at Albany in August 1775. As a symbol of the troubled times a broken belt was one of those presented by the commissioners. A new union belt was given by them. It represented the 12 united colonies, and was followed on their part by "the large belt of intelligence and declaration." Then followed the path belt, and the pipe of peace with six small strings. The Indians there referred to an old covenant belt of 20 rows between the Oneidas and Peter Schuyler, and another given by the Senecas. These old belts were again brought out at Albany.

In these many accounts of belts of this kind the development of emblems and the probable date of each may be seen. Many were arbitrary, and the exact meaning could only be known by tradition, which often proves a misleading guide with existing belts. Others had their meaning explained when given, to the great relief of those who received them. While a line may mean a road, a square or diamond a castle or nation, clasped hands alliances and hatchets war, it does not always clearly appear what road, nation, alliance or war is intended. The interpretation depends on the occasion, and the true meaning may be forgotten. In Pierre Margry's *Découvertes et établissements des Francais*, pt 5, p. 290-91, is a conversation between Capt. de Lamothe Cadillac and the Huron chief Quarante-Sols. It was at a council at Fort Pontchartrain, June 3, 1703.

Quarante-Sols. I came on my way to tell you what I propose to do at Montreal. Here is a collar which has been sent to us by the Iroquois, and which the Ottawas have brought us; we do not know what it signifies.

M. de Lamothe. How have you received this collar without knowing the purpose for which it was sent you?

Quarante-Sols. It has already been long since we received it. I was not there, and our old men have forgotten what it said.

M. de Lamothe. Your old men are not regarded as children to have such a short memory.

Quarante-Sols. We do not accept this collar; but we are going to take it to Sonnontouan to find out what it means, because it is a serious matter not to respond to a collar; it is the custom among

us. The Ottawas can tell you what it is, because our people have forgotten it.

M. de Lamothe. The Ottawas will reply that, having received it, you should remember it, but since this collar is dumb and has lost its speech, I am obliged to be silent myself.

Pontiac's great wampum belt is said to have been 6 feet long and 4 inches wide, and would thus have contained 9000 beads. It was covered with emblems of the 47 tribes and villages in alliance with him.

In the *History of the Ojebway Indians*, by the Rev. Peter Jones, p. 121, is an interesting description of a modern belt.

Firstly, the council fire at the Sault Ste Marie has no emblem, because there the council was held. Secondly, the council fire at Manitoulin has the emblem of a beautiful white fish; this signifies purity, or a clean, white heart—that all our hearts ought to be white toward each other. Thirdly, the emblem of a beaver, placed on an island on Penetanguishew bay, denotes wisdom—that all the acts of our fathers were done in wisdom. Fourthly, the emblem of a white deer, placed at Lake Simcoe, signified superiority; the dish and ladles at the same place indicated abundance of game and food. Fifthly, the eagle perched on a tall pinetree at the Credit denotes watching, and swiftness in carrying messages. The eagle was to watch all the council fires between the Six Nations and the Ojebways, and being farsighted, he might, in the event of anything happening, communicate the tidings to the distant tribes. Sixthly, the sun was hung up in the center of the belt to show that their acts were done in the face of the sun, by whom they swore that they would forever after observe the treaties made between the two parties.

This highly artificial character may be contrasted with the simplicity of early belts.

In a meeting between Johnson and some Cherokees in 1758, it is said: "The Cherokee spoke to the Belt of Wampum, addressing himself to Sir Wm., and the Belt of Wamp spoke it out in his own language." The Cherokees "gave a white belt, with one black row of wampum in it signifying the road, & 3 figures of men signifying Sir Wm. Johnson, & the Kophy & Tsyody nations."—*O'Callaghan. Colonial hist.* 2:766. In this case the Belt of Wampum who speaks is the Seneca chief known by this name, and also as Old Belt.

In David Boyle's *Fourth annual report of the Canadian institute*,

p. 23, there is a figure of porcupine quill work very suggestive of the wampum belt, having a similar plan, with the several divisions about the size of the beads used in the belts. 21 rows of the pattern, with the outer bands, have a depth of 5 inches, while the equivalents of 55 beads, measured the other way, are placed beside each other for a space of 4.875 inches. This gives nearly 11 to the inch, which is somewhat narrower than the average beads used in belts, but about the usual length. Mr Boyle says that 55 narrow strips of leather were used as a warp, the ends being neatly bound. His account of the weaving of the belt would require double this number. When thus bound at the ends, "the strips were then bound two and two by means of porcupine quills wound four or five times round, and fastened so ingeniously that even with a magnifying glass it is difficult to perceive how the work has been done. One row (say the top row in the plate) having been so formed, the next was commenced by binding the outer strip singly and thereafter taking one from each adjoining group of two above. In forming the third row the same strips would be bound as in the first row; and in the fourth as in the second, and so on. Meanwhile the pattern must have been clearly defined in the mind of the artist, for this is really a bit of artistic work, the purely ornamental portion of which speaks for itself both in color and design. The central figure demands a little more attention. At first sight one would hardly recognize it as a bird—perhaps not even at second or third sight, but there can hardly be a doubt that it is meant to represent the eagle or great thunder-bird, the belief in which is or was widely spread among the Indians over the northern part of this continent. The only claim that can be made for this conception of the thunder-bird is that as nearly as possible it is symmetrical—the method of working led to that."

The pattern has the long points or serrations found on recent wampum belts. These are in white, blue and light brown. The ground is red, and the bird is black edged with white. The binding of the leather strips in this alternate way makes the fabric very strong and has a pleasing effect on the pattern.

In *Eastern Maine and Nova Scotia in the revolution*, p. 286, Mr

Kidder speaks of a belt presented by the Indians of Maine as a pledge of friendship to the United States and France. A cross signified the latter, the 13 rows of the belt the former, and the Indian villages were shown by several white figures.

Underground. Underground belts are sometimes mentioned. Heckewelder says, page 109: "If the message be of a private nature, they are charged to draw or take it *underground*, that is, not to make it known to any person whatsoever, except to him to whom it is directed. If they are told to enter *into the earth* with the message or speech, and rise again at the place where they are to deliver it, it is to desire them to be careful not to be seen by the way by any person, and for that purpose to avoid all paths, and travel through the woods." In 1694 the Iroquois sent an underground belt to those of the Sault in Canada, with this message: "I put this message between you two underground, where it is to remain three years, in order to say to you that you must think much of the union that ought to exist between us, and not forget that here is your ancient country; that you ought to advise us of the designs of *Onontio* without letting him know it. Fear not visiting us; you will be always welcome." Father Lamberville handled many such belts at Onondaga. In August 1684 he wrote to De la Barre: "I gave La Grande Gueule your belt under hand, and remarked to him the things which you wish him to effect." This was *Hotreouaté*, better known to us as *Garangula*, who was the orator shown in the plan of De la Barre's camp.

Disposition. Colden said (p. 109) that the belts and other presents received from the western Indians at the council at Onondaga in 1690, were hung up in the council house and afterward distributed. One large belt was sent to Albany, and another from Albany was hung up and afterward divided. Lafitau said the nobles "furnish them, and it is among them that they are redivided when presents are made to the village, and when replies to the belts of their ambassadors are sent. . . Their wampum would soon be exhausted if it did not circulate; but in almost all affairs, either within or without, the law requires a reply, word for word, that is to say, for one belt one must give another, to be of about

the same value, observing however a slight difference in the number of beads, which must be proportioned to the rank of the persons or nations with which they treat." The note to Montcalm's letter is in the same words. La Hontan said: "Sometimes they keep for an age the collars that they have received from their neighbors, and, in consideration that every collar has its peculiar mark, they learn from the old persons the circumstances of the time and place in which they were delivered; but after that age is over they are made use of for new treaties." If they were but formal presents, they were often taken to pieces and distributed at once. This shows how little reason there is to think any belt left in Indian hands is of any great age, even were nothing else alleged.

Recent. Among the belts procured for the state museum by Mrs Harriet Maxwell Converse is one formerly held by Gen. Ely S. Parker, and represented in fig. 231. Her notes on this are given in full and some are attached to the belts.

Five council fires, or death belt of the Five Iroquois Nations, or the confederacy of the Iroquois. This belt I value perhaps more than any other in the possession of the state, inasmuch as the death belts were in the custody of the keepers of the east and west doors of the *Ho-de-ne-sau-neh*. This one was always held by the *Do-ne-ho-ga-wah*, the keeper of the west door, the Seneca nation, who were the guardian of the west door, the watcher and army guard of the confederacy. The Mohawks of the east door should have its mate in Canada. This belt signified death or war against some other nation or nations. When it was sent to the east door, the Hudson river, it was held in the council of war of each of the nations, Cayugas, Oneidas, Onondagas, Senecas and Mohawks, till returned by the latter, which signal was that the war must begin at once. It represented death or *absolute* extermination, or *absorption* by adding to the numbers of the Iroquois, whichever they decided on. The red paint, with which it was always decorated at the time of its journeys may be seen on it now.

In 1845 the Senecas abandoned the tribal government, and the one surviving portion of the body—the Tonawanda Senecas, became the actual proprietors of the death belt. During the lifetime of the *Donehogawah*, Gen. Ely S. Parker, he held it, and bequeathed it to his daughter. By the consent of his widow I have procured it for the state. To the Tonawandas it was of no material value, as they have been at peace for more than a century; therefore they relinquished their title to it when they ratified the transfer of the

wampum to the University of the State of New York last June. This precious relic will now forever remain with the state, and it is my request that the name of Gen. Ely S. Parker shall be attached to it in his memory, not only as the most distinguished of his later people, but as the last "keeper of the west door" of the confederacy of the Iroquois. At the condolence council of Gen. Parker another *Donehogawah* sachem—one of the 52 names that were hereditary in the nation—was raised or appointed as the successor of Gen. Parker, but the remnant of the Senecas is so feeble that the present sachem would not by law hold the belt. Some day the state of New York may get its brother belt of the Mohawks. I hope for it.

The statement given by the Senecas shows the small value to be attached to Indian traditions; and their ideas of this fine belt seem to have completely changed in the century and more in which it may have been held by them. Mrs Converse has wisely called attention to the red paint still to be seen on some of the beads, and which changed any belt into one of war. War belts may be reckoned by scores. This belt is a recent one of purple wampum, having the Five Nations represented by five open hexagons of white beads. Three rows of five white beads at each end alternate with the purple. A belt recently held by the Onondagas is almost the exact counterpart of this. In both, the hexagons represent the nations and they could be transformed into war belts by the use of red paint. The general design was common. Used as a war belt it might have been sent to or by the Five Nations. In the latter case the proposal of war was rejected, and the belt was returned. It was customary for any of the Five Nations to propose war by a belt, or even to carry it on alone, but a general war could be determined only by the grand council at Onondaga. War belts might call this council together, but they only proposed war. This belt is 38 inches long in the beaded part, or 370 beads. The full width is 2 inches, or seven rows. The buckskin thongs are about 3.5 inches long at the ends, the outer ones being double and twisted.

L. H. Morgan gives a list of 50 Iroquois principal chiefs, eight of whom were Senecas, the last being *Do-ne-ho-gá-weh*, or Open door. He says: "The Senecas were made the doorkeepers of the Long House, and having imposed upon *Do-ne-ho-gá-weh*, the eighth sachem, the duty of watching the door, they gave to him a sub-

sachem." The Senecas were called *Ho-nan-ne-hó-ont,* the doorkeeper. Horatio Hale gives a list of 52 principal chiefs, the last of the eight Senecas being *Teyoninhokawarenh* in Mohawk. The Onondagas call him *Ta-ho-ne-ho-gah-wen.* In every form it means the same. In the condolence song, however, it is said of him and another, "these two guarded the doorway," and their business was to transmit messages from without, not to originate them. The national or federal council did that.

Fig. 230 is called a condolence belt, at first with the name of Red Jacket, but Mrs Converse afterward found it was a Cornplanter belt. It is of purple beads, seven rows deep, but has lost some beads from the central part. The beaded portion is about 328 beads, or 36.25 inches long, being defective at one end. The full width is not 2 inches. The outside thongs are of double and twisted buckskin; the inner, narrow and single. The five equidistant vacant spaces may have had white diamonds. This was a private belt, not related to those of the confederacy, and not in the wampum keeper's care. Fig. 32*a* represents part of another belonging to Rev. W. M. Beauchamp, and obtained from an Indian woman. It is of nine rows, having three white rows on each side and one in the middle. A dark row of thinner beads is on each side of the last. It has been cut off at both ends, but the rows are now 65 beads long, with a full width of 3 inches. The beads are strung with a double thread of hemp on single buckskin thongs. The lines would indicate part of an alliance belt.

Fig. 243 is of a mutilated belt, nearly 2 inches wide and now 16.63 inches long. It is seven beads deep and 135 long, made on fine buckskin thongs, the outer ones double and the inner single. Three open white diamonds appear on a purple ground. These represent nations, and two more would make it a Five Nations belt, with a length of about 2 feet. The writer afterward saw and figured the remainder of this belt, and found his conjectures verified. The piece cut off is 59 beads long, has the two diamonds, and makes the complete belt exactly 2 feet long. It is a good specimen of this class, and the division took place for the convenience of a friend of the writer. Mrs Converse's note follows:

Ransom belt of wampum. This belt has been divided according to the old law. If a sachem or chief was captured and condemned to die, or a murder committed, a certain amount of wampum would ransom him. In this instance the captive must have been of prominence or of national importance, as the entire belt has been divided. How much of it is missing I can not determine positively, but, as the usual length of a wampum belt is about 3 feet, I conclude that about one half has been taken. The diagonals of white wampum signify the tribal fires or the eight clans of the Senecas—Wolf, Bear, Beaver, Turtle, Deer, Heron, Hawk and Snipe. This belt is exceptionally rare and has no duplicate. I obtained it from a direct descendant of Mary Jamieson—the celebrated white woman captive—in whose care it had been placed by the Senecas. She guarded it till her death, when it reverted to her heirs, by whom it has been held till now—the fourth generation. It is one of the national belts of the Senecas.—"*Harriet Maxwell Converse, Cattaraugus reservation, 23 June 1899*"

As above noted, the writer saw the rest of the belt a few weeks later. It presents no unusual features, and the five diamonds represent the Five Nations, the Tuscaroras being commonly omitted. Atonement was often made with strung wampum or other presents, which were given to the person or family injured, not to the nation as a rule. Atonement or ransom might be refused. When belts were given to the nation, they seem to have been for the family, were reckoned at their money value, and were soon used as money. In this case Indian tradition seems to have widely departed from the original meaning.

Fig. 245 is another fragment of a purple belt without figures, which is a little over 7 inches long by 2.75 wide. The depth is 10 beads, and it is 77 beads long. Mrs Converse calls it the Cornplanter wampum belt, and says:

This is a portion of the treaty, and should be kept with it always. The belt has been mutilated by dividing it among Cornplanter's heirs at the time of his death. It is impossible to obtain any of the divided portions, the beads having been separated and arranged in strings for burials or councils. This remnant has never been separated from the treaty, and is a record of the history of the Five Nations. Cornplanter's name and mark head the list of the chiefs who signed, and the treaty and belt were given to him to preserve for his people.—"*H. M. Converse. At the Cornplanter reservation*, June 1899"

This reservation was patented to Cornplanter by Pennsylvania in 1796. His Indian name is variously given in treaties and deeds, but is *Gy-ant-wa-hia* on his monument. He was long a noted Seneca chief and died at an advanced age in 1836. Mrs. Converse visited this and other reservations, and secured many of the belts in the state collection.

Three belts are represented which are in the national museum at Washington. Fig. 268 shows the largest, which has white figures on a dark ground. It is of 14 rows, the extreme width being 4 inches, and was obtained of W. N. Thompson, Chatham, Can. The beaded part is 41 inches long, or 238 beads. These are mostly dark and rather variable in thickness. One white bead in the outside row is $\frac{3}{8}$ of an inch long, but most are less than a quarter of an inch. The thongs are of plain buckskin. It is said to have belonged to Tecumseh, and this seems not improbable. On the other hand Andrew John, a Cattaraugus Seneca, made this note on it, which is preserved at Washington:

Wampum belt of the Iroquois Indians. This shows the formation of the confederacy called the Five Nations. The five figures of men represent the five tribes of this people as united to form a government of the league. The right hand wigwams are supposed to be the western end of their territory, and the first man to the right represents the Seneca, the doorkeeper to the league, the second the Cayuga tribe, the third the Oneida, the fourth the Mohawk, and the fifth the Onondaga. The first house is the council house, the next five are the original wigwams of the Five Nations, the seventh or last house is the one added to the confederacy, or the Tuscarora tribe, now known as the Iroquois confederacy. —*Andrew John*

This is rather fanciful, and the Iroquois are fond of referring all they can to the foundation of the league. There are actually eight houses on the belt, which may be read in reverse order, being alike on both sides. Two houses are broader than those at the other end of the belt, made in a different way and without pinnacles. They are not united. Three figures of men next these stand apart and are nations not in alliance as yet, though this may be sought. Two joining hands and supporting a flag between them are in active alliance, and may be the British and Shawnees. Six cabins

united by a basal line may be the Six Nations, whose alliance is sought. They are distinguished from those at the other end by side pinnacles, which may be chimneys, indicating their advanced condition. This is partly conjectural, but would agree with the supposed history of the belt.

Fig. 269 represents a belt ascribed to the same period, but probably not made by Indians. It came from Willis N. Tobias of Moraviantown, Canada, and is a white belt of 244 beads, or 37 inches in length. In the figure it has been folded more than the last, and has a width of 11 rows or 2.75 inches. The large white and purple beads have a foundation of coarse red twine. The two human figures, clasping hands, show an alliance, but are not in the usual conventional Indian form, while the letters, I. G. S., point to a European source. The former owner wrote to the national museum: "The belt is a good one and relates to the schemes of the renowned Shawnee chief, Tecumseh. This is a companion belt to the one you purchased from Mr Thompson, and is supposed (there is no documentary evidence) to be the record of a peace treaty in which the hatchet is buried and the hands joined in friendship between the tribes, who unite in war against the wigwams of the white man. It is certain that these are records of the offensive and defensive alliances formed by Tecumseh against the hated Long Knives, or Americans." The letters, however, make it evident that the alliance in one belt was between the Indians and civilized men. These would refer to some prominent officer, and the writer identifies them with the initials of John Graves Simcoe, governor-general of Upper Canada, 1791-94.

Fig. 270 shows a small belt whose history is now unknown, but which is supposed to have belonged to the Mohawks. The beaded part is 20 inches, or 160 beads long and is six rows deep. The beads are quite uneven, but have the usual average length. Purple beads form the ground, and on this are two very broad open diamonds in white beads. Three short rows of white alternate with the purple at one end, and at the other are six rows of white alternately long and short. The thongs are of twisted buckskin. These were kindly photographed at the national museum to illustrate this bulletin, a favor gratefully acknowledged.

The first definite account we have of the later Iroquois belts in the custody of the Onondagas is that given by J. V. H. Clark in his history, in 1849, 1:124-25. The belts had been kept on the Buffalo reservation till 1847 by *Ut-ha-wa*, or Capt. Cold, an Onondaga chief. In that year the council fire was restored to Onondaga, and Mr Clark's account follows.

Dehatkatons was at that time chosen keeper of the council fire of the Six Nations. These archives consist of various belts of wampum, some 25 or 30 in number, which the author has had the satisfaction of seeing, (a sight rarely allowed a white man) with explanations from the keeper. Here is shown a belt, 16 inches broad by 4 feet long, representing the first union and league of the Five Nations, and is called the *carpet*, foundation or platform, or as we may better understand it, the constitution; literally something to stand upon. The several nations are distinguished by particular squares, and these are joined together by a line of white wampum and united to a heart in the center, implying the union of heart and hand as one. In connection with this is a second belt having the figures of several chiefs wrought in the wampum, all holding hands in a circle, which is to represent that there shall be no end to the league.

On one belt is figured the Long House, the Great Cabin, which no new nation can enter till it has erected some little cabins around it; that is, the nation must perform some deeds worthy of note before it can be entitled to admission to the great league of confederation. Around this are five smaller cabins, emblems of the original Five Nations before the league was formed, and on one side is a still smaller one, wrought since the first, representing the Tuscarora nation, which was admitted at a subsequent period. Another long narrow belt, having a cross at one end and a Long House at the other, a narrow white stripe connecting the Long House and a large cross, was explained as follows: "Great many years ago" a company from Canada presented this belt, desiring that missionaries from the Roman catholic church might be settled among the Five Nations and erect a church at Onondaga, and that the road should be continually kept open and free between them. All the other belts were explained with particular minuteness.

The bag which contains these relics is of itself a singular curiosity. It is made of the finest shreds of elm bark, and a person without being apprised might easily mistake it for the softest flax. Its capacity would exceed a bushel. The bag is reputed to be as old as the league itself, and certainly bears the marks of great antiquity. The tubes or beads of wampum are of red, dark blue, pale blue, black and white colors, made of conch shell. They are about $\frac{5}{8}$

of an inch long, about as large as a small pipestem and hollow, strung, woven and wrought with sinews of deer, and bark.

Mr Clark's dimensions of beads and belts are too large, but his account may be compared with those more definite and later. The rapid decrease in the number of belts may also be noted. They were not seen again by a white man till the summer of 1878, when the writer examined them at Thomas Webster's house. That fall Gen. J. S. Clark obtained small photographs under difficulties, and from these were made large drawings to illustrate W. H. Holmes's excellent paper on the shell articles of North America. Since that time the writer has had several ample opportunities of examining all these belts, and the widest two were secured by him for the state museum. There were but 12 remaining when he first saw them, and, if Clark is correct, more than half had disappeared within 30 years. Some fine belts were certainly lost.

During his knowledge of them various and conflicting interpretations of these belts have come before the writer. Some will be given to show how little is certainly known. Fig. 252 is the reputed original record of the formation of the league, and the tradition is constant. Clark had this interpretation, but exaggerated the belt's dimensions. Instead of being 4 feet long by 16 inches broad, it was 10.5 inches wide by 23 long in 1878, showing a great loss at each end. The width of course had not suffered. When exhibited in Syracuse in 1886 it was said: "This belt was used at the great council which met to ratify the union of the Five Nations. The age is unknown; nothing but the tradition of the council remains." Gen. Carrington, who obtained this from the Onondagas, calls it "the official memorial of the organization of the Iroquois confederacy, relating back to the middle of the 16th century." It is sometimes called the Hi-a-wat-ha belt, and has been in controversy in our courts over a question of ownership. It is a fine modern belt of 38 rows, made on buckskin thongs, the outer ones braided, and is strung with flax or hemp thread. The beads were made with modern tools and are mostly purple. There is a conventional heart in the center, and four open castles remain in white beads. As the pattern shows that there were others beyond these on either

hand, this plainly proves that it had no reference to the original league. It is probably not 150 years old. There are good pictures of all in the census of 1900. Gen. Carrington was special agent for the census of 1890, and his farther notes will be credited to Thomas Donaldson, the compiler of the report on the Six Nations of New York.

Fig. 244 represents the widest belt known, one of 50 rows wide. Through a slight mistake of the writer this was reported to Mr Holmes as 49 rows. It is 14.75 inches wide and about 35 inches long. Though not of the original length it has not been diminished since it was first pictured. The pattern is decidedly modern as well as the material. It is made on small buckskin thongs with a hard, red thread. The interpretation of 1886 was, "The second belt used by the principal chief of the Six Nations. Very old." Mr T. Donaldson's note is similar. He calls it "Wing or Dust Fan of Presidentia of Six Nations." Also "the wing mat used by the head man to shield him from the dust while presiding at the council." It seems to represent an alliance actual or proposed, and to be of the variety termed chain belts.

Fig. 232 is another modern belt of the same date, termed by Mr Donaldson, "Presidentia of the Iroquois, about 1540." A series of dark points inclose open white diamonds, signifying nations or towns. It is properly a chain belt, showing a completed covenant. When Gen. Carrington photographed it in 1890, it had lost nothing since first seen by the writer. Before it again came into the latter's hands it had been reduced from 16 to 14 diamonds. It is 45 rows wide or 13.5 inches, and was incomplete in length when examined in 1878. The material is as in the last, and both seem to have been made by one person. The note of 1886 says, "The first belt used by the principal chief of the Six Nations. Very old." Both these were secured for the state in 1898, and they are the broadest on record. Unique in every way their modern origin is at once apparent to any careful observer, but no definite date can be given them. One reason for this failure of a true tradition is very clear. The belts were brought to Onondaga in 1847 and placed in La Fort's hands. He died a year later, and, if familiar with them him-

self, had but a brief opportunity to convey his knowledge, if he did this at all. They then came into the hands of the Websters as a matter of convenience, and they had no training for the office. Thomas Webster certainly gave meanings to suit himself or his visitors, not knowing their history.

Fig. 248 is 15 rows or 5 inches wide, is nearly 6 feet long and has purple figures on a white foundation. There are 8½ beads to the inch of length, and it is on twine thongs. All agree that this is a covenant belt with the 13 original United States, but the interpretation of parts varies. Donaldson says it is a "memorial of the first treaty made by Washington on behalf of the 13 original states and the president of the Six Nations at the national capitol." Others have seen in the central house the capitol building at Washington, and in the two men within this representatives of the contracting parties. The writer's opinion has been that the central part of the house contains the Iroquois council fire, with an Indian on either side clasping hands in alliance or friendship with the states outside. This may be one of the belts which Clark thought connected with the formation of the league.

Fig. 237 is the belt which Clark thought was a French missionary belt, and which has long had that reputation. Mr Shea and others have felt very sure that it is a belt given to the Onondagas by Chaumonot in 1655, but this has a very slender foundation. There is no hint that he presented any emblematic belt, and no probability that any French belt would have been kept through the succeeding wars. The Jesuits allude to none so held. The groundwork of purple wampum is almost conclusive against its antiquity. On the other hand a similar belt is on record over a century later. In 1775 the Moravian Indians sent a belt to the grand council of the Delawares, which was 3 feet long, having a white cross at one end and a band through the middle. (*De Schweinitz*, p. 426) As the Moravians and their Indians had frequent business at Onondaga, this belt is more likely to have been Moravian than French, if its character is allowed. The cross, however, was a frequent symbol of Canada, considered as a country. The sole reason for the missionary theory is found in the cross terminating the white line which reaches the

man's head toward the other end. At the feet of this human figure is an open diamond, representing a castle. Donaldson described it as showing "the guarded approach of strangers to the councils of the Five Nations;" by no means a bad interpretation. Probably in this case the cross would be the strangers coming by the path of peace, which is guarded by the warrior or chief before the castle. In 1886 Webster described this as a belt of admission to the league. It is on buckskin thongs, and strung with fine white thread. The width is seven rows or 2.5 inches.

Fig. 238 is another of the Onondaga belts, six rows deep or 2.25 inches wide, and made on twine thongs. A curious feature is that in the squares there are two rows of dark beads to one of white. Carrington's picture gives but four of the sloping lines of black beads. It had five when first seen by the writer, being then perfect and probably relating to the Five Nations. It is noticeable how this loss changed the meaning, which Donaldson gives as "a treaty where but four of the Six Nations were represented." In 1886 Webster said that this and some others "represent the submission of each tribe when they joined the confederacy and were turned over to the wampum keepers.

Fig. 251 had the same meaning given to it by Webster, and the fondness for a similar interpretation is noticeable. It is a fine belt of seven rows, with open white hexagons on a purple ground, being almost the counterpart of the Parker belt. It has buckskin thongs and black thread. Donaldson speaks of this as a belt "claiming to bear date about 1608, when Champlain joined the Algonquins against the Iroquois." It is by no means so old, and has been mutilated since it was first seen by the writer. It was then perfect.

Fig. 240 is a belt of 12 rows with black diagonal bars on a white foundation, and it is imperfect at both ends. It had seven full bars when first seen by the writer, but Mr Carrington's picture shows but six and perhaps part of another. According to him it "represents a convention of the Six Nations at the adoption of the Tuscaroras into the league." This is not satisfactory, but no other meaning has been given. It is on buckskin thongs. Sloping lines are said to be temporary alliances.

Fig. 239 is of seven rows, and has four pairs of black diamonds on a white ground. The diamonds are linked in pairs. Among the black beads at one end is a small white cross. Donaldson says of this that, having "the Five Nations upon seven strands, it illustrates a treaty with seven Canadian tribes before the year 1600." It is probable there should be another pair of diamonds, but this age can hardly be allowed, as these tribes came into existence in the 18th century. Wampum like this was not known in the interior of New York till very much later than his date. In 1886 Webster called it a belt of admission to the league. It is a recent belt on buckskin thongs.

Fig. 249 was once a fine belt of 13 rows, but is now quite defective, having lost much since first seen by the writer. The ground is of white beads, with four triple diagonal lines of black. The outer lines of these are two beads deep, the inner one being separated by white lines of two beads. This is on buckskin thongs.

Fig. 236 is a belt of 7 rows, with a zigzag pattern at one end and a series of small dark crosses. Donaldson says this "embodies the pledge of seven Canadian Christianized nations to abandon their crooked ways and keep an honest peace." The interpretation of 1886 was "St Regis tribe belt, given to mark their submission to the power of the Six Nations, with a promise of peace." The St Regis Indians are mostly of Iroquois stock, and about 150 years old as a people. This belt has twine thongs, and may have been made by white men. Fig. 250 shows what remained of another belt in 1878. It was probably a belt of eight rows. These were all then remaining out of double the number shown to Mr Clark 30 years earlier. The missing ones had been consumed in messages, offerings and ceremonies.

H. E. Krehbiel published some articles in the *New York tribune*, July 1897, on the Canadian Iroquois belts shown him by John Buck, or *Skan-a-wah-ti*, in 1892. Nation for nation, and chief for chief, the Six Nations of Canada keep up the same organization as in New York, and Buck was then wampum keeper. Mr Krehbiel said:

On one of them was a row of figures like half diamonds, each extending across the belt. From Buck's explanation I gathered that the figures were conventionalized hearts. This perpetuated the memory of a treaty. "With what tribe?" I asked. "The Eries," answered Buck. "About what time?" "About 200 years after the white man came to America." This illustrates the starting point which Buck chose for nearly all his estimates of time. So many years or centuries before or after the white man came.

Belts of pure white beads Buck described as records of treaties of peace. Stripes diagonally across a belt, he said, were symbols of agreement that the tribe giving it would help the Six Nations in war—the diagonal figure being intended as props for the Long House, the symbol of the confederacy. One belt which showed in its middle an oblong figure with a spot in its center, Buck said was the record of a treaty granting hunting and fishing privileges, that is to say, the tribes exchanging the belts agreed to use certain hunting and fishing territory in common. When asked how this was symbolized by the design on the belt, Buck explained that the parallelogram was a dish, the spot in its center a piece of meat. A belt of purple containing a white conventionalized design like that commonly called the Greek key pattern (a meander) was said to have been sent by whites as a confirmation of a treaty.

The collection of belts brought by Buck did not appear so numerous as that shown (1871) on Mr Hale's photograph. Its most interesting feature was half of the belt which, according to tradition, signalized the formation of the Iroquois confederacy. The circumstance that he had only half the belt Buck explained by saying that, when the Six Nations separated after the American revolution, the majority leaving their ancestral home in what is now New York state to become the wards of the British people, for whom they had fought, in Canada, the wampum belts were divided between the two bodies. In the case of this belt, the league belt, neither body wished to surrender it to the other, so it was cut in two and each body took a half. This belt, however, is not that which is described as the Hiawatha belt, in the possession of the mayor of Albany.

The latter belt, according to a description recently printed, contains four oblong figures, 4 inches by 5, two of which are on either side of a diamond-shaped figure in the middle. All the figures are connected by links and are expounded as follows: The diamond represents the Onondaga nation, which was the wealthiest and most powerful. The other four figures stand for the Senecas, Mohawks, Cayugas and Oneidas. These were the original five nations of the confederacy. Now the half believed by the Canadian Iroquois to be the record of the formation of the league, (the Great Peace, as Mr Hale would have called it) shows only a row of conventionalized human figures clasping hands, an exceedingly rude and simple

design, for all the world like the chains of dolls which are cut out of paper to amuse children.

Mr Krehbiel referred to a photograph procured by Horatio Hale in September 1871, when he gathered six Iroquois chiefs on the Canadian reservation near Brantford. "There all the wampum belts were brought and their meaning was explained to Mr Hale. A photograph of the group preserves the incident." The chiefs present were all well known, but many years later the picture and chiefs did duty in an unexpected way. If the reader is curious in the matter, he will find all, including the names, in the United States census of the Six Nations of New York for 1890, under the title, "Reading the wampum, 1890," and with this note, "The reading of the wampums to the representatives of the tribes gathered at St Regis makes a suggestive picture." Then follow the names of the chiefs given by Mr Hale many years before. In the picture over a dozen belts appear. On the back of the photograph here used, from which the illustration mentioned was taken, Mr Hale wrote:

This picture represents the chiefs of the Six Nations, on their reserve near Brantford in Canada, explaining their wampum belts. (Sep. 14, 1871) These chiefs were

1 Joseph Snow (*Hahriron*) Onondaga chief
2 George H. M. Johnson (*Deyonhehgon*) Mohawk chief and government interpreter. Son of no 4
3 John Buck (*Skanawatih*) Onondaga chief and wampum keeper
4 John Smoke Johnson (*Sakayenkwaraton*) Mohawk chief and speaker of the council
5 Isaac Hill (*Kawenenseronton*) Onondaga chief and fire keeper
6 Seneca Johnson (*Kanonkeredawih*) Seneca chief

The wampum belts were explained to me on the reserve, at the residence of Chief G. H. M. Johnson; and at my request the chiefs afterwards came with me to Brantford, where the original photograph (of which this is a copy) was taken.—*H. Hale. Clinton Ont.*

Quite a difference will be noticed between the Indian names here and in the census report, while the English names are the same. Frequent correspondence with Mr Hale enables the writer to say that the above is an absolutely true copy. The numbers are to be read from left to right in fig. 281. One face has been turned.

An officer is mentioned among these Canadian chiefs who does not appear on New York reservations. The Canadian Iroquois have fire keepers, representing the Onondagas, and their office is peculiar. It may partially appear in the writer's visit to the Six Nations' council at *Ohsweken*, Canada, September 1899, asking permission to photograph their few remaining belts. Chief J. S. Johnson introduced him to the secretary, and he was escorted to the highest seat, and placed with the two interpreters. This was at the end of the large council room and facing the audience. On the platform before him sat the secretary, a step lower down, with the speaker on his right. On still lower seats against the two side walls were the chiefs of the two brotherhoods, and in front of the speaker and facing him were the Onondaga fire keepers. The petitioner was introduced, rose and made his request, which was translated by an interpreter as usual. The chiefs of two of the Elder Brothers, the Mohawks and Senecas, quietly consulted, and then a Mohawk chief gave a favorable opinion to those opposite. The Younger Brothers, the Oneidas, Cayugas and Tuscaroras, did the same, and an Oneida chief announced their concurrence. Had they not agreed, the fire keepers would have had the decision. As it was, they merely made a favorable report. Then the speaker announced the full opinion, which was interpreted to the visitor in a dignified and lengthy speech, and to which he made a suitable response. It seems quite a long process, but, as there was no public debate or voting, it really took no more time than many such things with us. No wampum strings were used; for they had none left, and this mode of holding a council is a modern innovation.

Pres. Washington gave a white belt to the Six Nations in 1792, with these words, "As an evidence of the sincerity of the desire of the United States for perfect peace and friendship with you, I deliver you this white belt of wampum, which I request you will safely keep." In his speech, July 28, 1812, Red Jacket said that Washington had once presented a chain belt. "Upon this belt of wampum he placed a silver seal. This belt we always have and always wish to look upon as sacred." Red Jacket had this belt identified by white men present. An eagle was engraved on the

seal as an emblem of the United States, but the belt seems different from that mentioned above, as it was called a curious one. The chief did not stop with this. "He likewise held up another belt, much larger, of different colors, which appeared to be very ancient. . . 'Brother, I will now state to you the meaning of this belt. A long time ago the Six Nations had formed an union. They had no means of writing their treaties on paper and of preserving them in the manner the white people do. We therefore made this belt, which shows that the Six Nations have bound themselves firmly together; that it is their determination to remain united, that they will never do any thing contrary to the interests of the whole, but that they will always act towards each other like brothers."—*Stone*, p. 230-32. No description of this belt appears, but the Onondaga belts were then kept at Buffalo. It may be added that it was not customary to place the Tuscaroras on the Iroquois belts, as they were not considered a part of the Long House.

It may be of interest to repeat what some Onondagas have said of their belts. In 1888 Thomas Webster, the wampum keeper, declared that the wampum "means nothing to the white man; all to the Indian. There is a tree set in the ground and it touches the heavens. Under that tree sits this wampum. It sets on a log. Coals of fire is unquenchable, and the Six Nations are at this council fire held by this tribe. *To-do-da-ho*, a member of the Bear clan, is the great chief here. . . One of the uses of the wampum is for a symbol in the election of officers. The wampum bearer keeps the treaties of the nation."

This is not very clear by itself, but it has some reference to the following account of the Onondaga belts, given to E. W. Paige by Daniel and Thomas La Fort at Onondaga, July 19 and Aug. 1, 1898, and recorded by him in the appeal book in the Thacher case:

Fig 251 represents a sorrow meeting of the Five Nations. If a misfortune happen—little boys and girls were taken and one killed—to consider what should be done for remedy that misfortune—a tooth for a tooth, an eye for an eye. This is a Hiawatha belt. This belt is used when a meeting of that kind is called.

Fig. 232 representing a superior man—*To-do-da-ho.*—That is a

carpet for him to sit. You clean the carpet for him to sit and nothing evil can fall on the carpet. They have furnished two prominent women and having a broom so that it would be clean. This was in the lifetime of *To-do-da-ho,* and the Five Nations furnish him a stick, laying close by where he sits—represents as a limited power given to him by the Five Nations. If he sees something evil coming he would take the stick and throw away, and if the stick not strong enough then he would notify the Five Nations to come help him; that the animal and wild peoples come prepared for war. The *To-do-da-ho* would speak to the animal and ask: What is thy business coming here without our knowledge?

Fig. 252 One heart of the Five Nations—that if any hurt of any animal would pierce that heart, then they would all feel it—all the Five Nations. This was in *Hi-a-wat-ha's* belt. That they are a united people. This is the original *Hi-a-wat-ha* belt—a record of the first agreement to make the league.

Fig. 244 Between Bastable building and the corner of Genesee and Warren streets, Syracuse, was held the last council which completed the league. Both *Hi-a-wat-ha* and *To-do-da-ho* were there. 300 years (ago).

Represents an everlasting tree—always keep growing, reaching to heaven that all nations may see it; and under they set a general fire to burn forever—the council place of the Five Nations—and that the council fire is to be kept at the Onondagas, and the Onondagas are the expounders of the law.

After they had ratified—it was understood—we look far away and we see a darkness, and in the darkness an unknown and strange face, and they could not understand what it was—and it came to be interpreted that we would be forced to adopt an unknown law—but it was coming before that generation passed away, and finally their heads would roll and roll away, and after a time they would recover their bodies, and then they would embrace the law that was once lost to them, and the tree would grow forever. After they will restore the original law their confederation will be more permanent than the first one, and their original law will remain forever. They say that one of the women said: "You can use all the water of the ocean to wash away the Indian blood, and when you have done there is just as much water left in the ocean as before you began—so the law—you can take from it parts of the Indian law, and put another in its place, but it will come again and last forever."

This was the last belt that was made at that ratifying time. When the belt was ready it was said by one of the orators to that council, "This is the last belt which we make confirming the laws which we have just adopted," and he encouraged the people of the Five Nations to instruct them with the meaning of the wampum to serve

the laws. At the conclusion of his remarks he said: "As long as you will follow up the laws of the Five Nations you will be in prosperity and happiness, but whenever our people may not heed the instructions which we instructing to you, then it will come in the state of dissension among our people—and the last remark—if you will disobey and disregard the laws we have, that generation will suffer." *Hi-a-wat-ha* made that speech.

This belt is not the original which was there at that time, but a copy. It was made not a great while after the death of *Hi-a-wat-ha*. That each clan shall be entitled to one principal chief and war chief. When the council ended, *Hi-a-wat-ha* went up the Onondaga creek and distributed the belts among the clans—making the clans and chiefs. And in his speech he said: "I have made a place for you under ground and a fishing ground. I have finished my work." It is claimed that he did not die, but went up in his canoe and said: "When you shall be in a state of confusion I will come back."

That *Hi-a-wat-ha* saw the strange face in the midst of the darkness, and he interpreted it that the unknown law which was coming, should prevail over the new law—that is, the law which has just been adopted and the tree that was just planted. The root spread from east to west, and from south to north. Under the tree, while the root of the tree was spreading, all the Five Nations laid their heads on the root. That is the constitution. If any of their enemies should attempt to strike against the root—from their enemies destroying some of their people, and after striking against up the root, the man who struck the root would turn, and the blood would come out of his mouth. That is revenge for blood. The roots of the tree would continue spreading in all directions forever; and the fire would continue forever, and the smoke of it go all up to heaven, so that all the nations of the world would see; and that the laws—that is the wampums—be read every year forever. Between the Bastable and the corner of Warren and Genesee streets—last council.

Hi-a-wat-ha would come again, but when he did not say. He did not die, and when he came again he would renew the old, and it would be stronger than then, and that is the expectation we have. The former meetings of the Five Nations were on Onondaga lake, and some near Liverpool. He was the proclaimer of councils, and the only proper person to call a council. These wampums were made during these meetings, and were complete at the last meeting when everything was ratified.

The place mentioned in Syracuse was then a dense swamp. According to Morgan and Hale several clans had no principal chiefs. The Onondagas now generally agree with the writer that Hiawatha

lived about 300 years ago. He did not, however, go up Onondaga creek with the belts; for the Onondagas did not reach that valley till over a century later.

Fig. 236 This belt was made great many years afterwards. It is the Caughnawauga belt. This represents the union of the seven nations; the St Regis and Caughnawaugas—and the crooked line at the bottom represents that they were crooked—that is, Roman catholic.

Fig. 248 This is the record of the treaty with General Washington.

Mr Paige refers this to a treaty of 1789, between the United States and Six Nations, printed among the United States treaties. J. B. Thacher has this fine belt.

Fig. 237 A record of this: The priest told the Onondagas that a building right by the mission house—and told them that there were goods there stored for the Onondagas, but he could not open them until the king came, and a white boy who had been captured had been told by the priest that it was full of arms—and when the king came they would annihilate the Onondagas. The boy told the chief, and they held a council and resolved to open the building. The priest tried to keep them from it, but they opened the door in spite of him, and found the building full of arms. They heated an axe red hot, and hung it upon the priest's heart, and it burnt his heart out. The French did come, and the Onondagas met them at Camden, and defeated them in a great battle, and then the Onondagas all renounced catholicism.—It was between Pompey and Jamesville, about this side of Pompey Hill. Cross means Canada. The white line a road from Canada to the Onondagas and the village at the other end.

These symbols are correct, but the only historic truth is that of the almost bloodless French invasion.

Fig. 239 This belt was used to call a meeting of the council of the Five Nations, at which should be read all the laws. This was made when *Hi-a-wat-ha* was traveling and distributing the clans, and this belt made to represent that the nations were divided into clans, and were to remain strictly so—that there could be no intermarriage. This last was said rather as a detail.

Fig. 240 The five upper diagonal rows are the *Hi-a-wat-ha* belt, and represent the union of the Five Nations. When the Tuscaroras were taken in they added the sixth, which they call a brace. This is the taking in of the Tuscaroras.

This interpretation is baseless. The belt had seven diagonal rows when first seen by the writer, and was even then defective at both ends, probably having as many as 10 bars.

Fig. 238 Braces to buttress up a house so that it would not fall. Made when the St Regis were taken in—so that the St Regis were a brace to the Five Nations, and the Five Nations to the St Regis.

Fig. 249 A record of the first coming of the people with white faces.

Fig. 250 shows what remained of an Onondaga belt in 1878. This fragment has long disappeared. This steady waste of the belts caused an effort for their preservation. By council action at Onondaga the regents of the University were made keepers of the wampum, and at a council in the capitol at Albany, June 29, 1898, the Iroquois chiefs of New York placed in their hands all the belts that remained. The meeting was held in the senate chamber, and the proceedings were impressive.

Figures are given of 11 belts belonging to Thomas W. Roddy, of Chicago. They are mostly fine and in good preservation, but erroneous dates have been given to some. In fact a good authority reports them as having recently belonged to the Canadian Six Nations. Fig. 185 is called a " French peace belt, 200 years old," but without particular reason. It may be a covenant belt of half a century later, or a proposal for an alliance. The single line seems the path of peace, and the five long open figures are probably the Five Nations, while the four uniform white diamonds may be four of the colonies of the white settlers. This is the largest belt in this collection, but does not equal many others in size, being 14 rows deep and 500 beads long, an unusual length now. The material and symbols make its recent date probable. Fig. 184 is called a French mission belt by the owner, apparently because of the crosses. This is a plausible but not certain test, and it may be considered about the age of the last. Fig. 180 is called the Red Jacket belt, and the owner says that " it contains pictorial representations of the nine council fires in which he took part during his life." It might bear this interpretation, as the diamonds may mean fires, villages or nations, but the Seneca orator can hardly be limited to so few councils. The usual interpretation would be an alliance between nine towns or nations. The belt is 15 rows, with a line and diamonds of dark wampum on a white ground.

Fig. 186 is styled the "Captain Brant belt of 1750." The great chief was then a child of 8 years, and a belt of that date could have had no reference to him. Still less can it be allowed that "the three white lines on his wampum show his trips to England." He made but two trips there, not three. There is an open square at each end, signifying a nation, while the broad white line between shows an alliance both strong and enduring. Fig. 183 is called a Black Hawk belt, and is a black belt 12 rows deep. Seven open diamonds of white beads are united by a line of white, indicating a covenant.

Fig. 187 has the double diamonds found on some others. There are five of these in this, and they may well stand for the Five Nations. The owner thought so, and called it "Five Nations' war belt." By the use of red paint any belt acquired this character. It is 15 rows deep, and has some short white rows at one end. This may be compared with a similar New York belt. Fig. 191 is defective, but has two white squares and two white hexagons, inclosing similar figures. It is styled the "Old French fort belt of New York, 300 years old." No French fort was here then. It seems quite a recent belt.

Fig. 189 has been called the "Six Nations' peace belt." It has partly open diamonds on a white ground, and is 10 rows deep. There is no symbol to indicate this character. Fig. 188 is also styled by the owner "Six Nations' peace belt, representing two roads." He interprets it as an offer of peace from the Americans and English respectively, either of which the Indians might choose. Fig. 190 he considers the Gov. Denny belt of 1758, inviting the Indians to a council at Philadelphia. It does not seem probable that an invitation belt would have survived so long, and the figures are those of a covenant, more likely to be preserved.

Fig. 192 evidently refers to a council, and Mr Roddy calls it the first William Penn belt. A statement connected with it says that the belt was given to the Indians "before they entered the council house where the treaty was to be made, and was a token of amity and good faith. On the belt is worked the figure of a white man and one of an Indian. To distinguish one from the other the white

man is marked with a white heart, and the Indian with a dark one. When the treaty had been concluded, and the Indians came out of the council house with Penn, they presented him with a return belt as evidence of their good faith." The usual idea is that the treaty was under a tree. The house is imaginary, but the general character is much like that of the noted Penn belt; strictly the style of a later day. Thanks are due Mr Roddy for photographs of all these fine belts, which are of great value, though of uncertain age.

William C. Bryant, of Buffalo, writes of two belts in his possession: "The large belt was read in the last great Canadian council at the Grand River, in the 70's, being a treaty belt representing an Iroquois and a white man clasping hands from opposite sides of the belt. The second and smaller belt, consisting entirely of dark beads, was the credentials of a runner sent to convene a war council. I believe both belts were ante-revolutionary. I have a volume containing the proceedings of the above mentioned council, and the reading of the belts."

W. L. Hildburgh, in a recent letter to the writer, said: "While in Rome I heard of what may be a large wampum belt in the museum of the College of the Propaganda Dei Fides. My informant spoke French to me, and was not versed in American archaeology, so that I may be mistaken." On farther inquiry it did not appear.

Mr Hildburgh made small photographs of four belts in the museum of the Trocadero, Paris. One was lettered. Fig. 272 represents another of eight rows, about 224 beads long, with purple *swastikas* on a white ground. Fig. 273 was called a scapular, but it may have been merely an exceptional form of belt. The general pattern is of hollow squares and crosses. In the widest part it has 13 rows, and is about 260 beads long. Fig. 274 is 17 rows wide, and about 225 beads long. There are Indians with bows in white on a purple ground, unusually arranged.

He has also added another too late for illustration. He describes it as a Huron wampum belt in the Imperial museum of natural history, Vienna, Austria. It is a white belt, with five double diagonal black bars, thus suggesting the Five Nations rather than the

Hurons. It is 10 rows deep, and can easily be figured from the formula of the upper row: 16 white, one black, two white, three black, 20 white, one black, two white, three black, 20 white, one black, two white, three black, 21 white, one black, two white, three black, 21 white, three black, two white, one black, 21 white. In each succeeding row move the black one bead to the right, making the lower row begin with 25 white beads.

Fig. 255 may be compared with one of these belts. It is taken from a picture of one of the Mohawk chiefs who went to England in 1710, and has two rows of hollow crosses on a purple ground. The extreme length would be about 3 feet, and the width is estimated at 20 rows. The crosses may refer to part of their mission. This is from the picture of "*Fee-yee-neen-ho-go, (Tekarihoga)* emperor of the Six Nations."

In 1895 S. H. Goodwin sent the writer three small belts for examination, which he had from near the Georgian bay, Canada. Fig. 254 shows one of these, being an ordinary belt of seven rows, having five rows of white beads arranged diagonally on the dark ground. The others were of unusual form, an expanding basket shape, broad at the top. Fig. 169 shows one of these 28 rows deep, having five open white diamonds on a dark ground. Fig. 170 is of the same general form, and is 27 rows deep. It has nine open squares of white beads arranged diagonally. The foundation of both is of twine.

The writer attended a council at *Ohsweken*, Canada, in 1899, and secured pictures of the belts there. Fig. 174 is six rows deep, and has 11 broad vertical bands of black and 10 of white. Fig. 175 is of 12 rows, mostly white. There are three double diagonal bands of black, one and four beads wide. Fig. 176 is seven rows deep, with 10 broad, black, diagonal bands, and the same of white. Fig. 177 is of eight rows, mostly white, with five triple diagonal bands, two of one black, and one of three black beads. Fig. 178 is of seven rows of white glass beads, perfectly plain. Fig. 179 has nine rows, crossed by three double diagonal rows of single black beads on a white ground. After John Buck's death most of the fine collection of Canadian Iroquois belts quickly disappeared.

Some additional belts in the state museum are to be described. Fig. 229 is a fine emblematic belt, with a wolf and black horizontal bars at each end, and two men clasping hands in the center. It is 14 rows deep, and mostly of white beads. It has been called a Mohawk totem belt, and was bought at St Regis, July 24, 1898, by Mrs Converse. She writes: "Date unknown. Purchased from a St Regis Indian, and known as the Wolf belt. Supposed to be a treaty between the French and Mohawks. The center figures—two men—represent the king and an Indian clasping hands in friendship. The seven purple lines signify seven nations, white the peace paths guarded at each end, east and west, by sachems of the Wolf clan, symbolized by the purple animal figures. The hereditary keeper of the eastern door of the Long House was a Wolf, the *Do-ga-e-o-ga* of the Mohawks according to John Buck. The *Done-ho-ga-weh* of the western door was also a Wolf." The Mohawk chief mentioned was a Turtle, but the Seneca chief is correct. The Mohawks treated with the French, but were never in their alliance, and the emblems are those of the middle of the 18th century. At that time the western Iroquois were balancing between the English and French.

Fig. 234 is of 10 rows, mostly white, but with three diagonal rows of three open, black squares. This is recorded as a "Huron belt purchased from John Buck, the wampum keeper of the Grand River (Ontario) Canadian reservation. Chief Buck said that the belt had originally belonged to the Senecas of New York, and, previous to the revolutionary war had been in their possession. The Hurons were exterminated by the Iroquois in 1650, and, as the belt contains braces, it is to be inferred that it was wrought for some time previous to the extermination of the 'gentle' Hurons. This belt may have been an affiliation between the Hurons and some of their neighbors, the Wyandots, *Quatoghies*, Neuters, *Ka-kwas* or others." The Hurons rarely used treaty belts before their overthrow, but were fond of them in later years. The belt, if Huron, may be assigned to their later days.

Fig. 235 is a long and narrow purple belt of seven rows. Mrs Converse writes: "This is a condolence belt, with two diamonds

and a half circle in white. This was marked Onondaga. It was purchased by me as such, but I now find it was a Seneca belt, and Gov. Blacksnake held it." Fig. 242 is a white belt of six rows, with three diagonal bars of black. It is labeled a "hospitality or welcome belt—Canadian Mohawk." Fig. 247 is entitled a "ransom belt." "Could save a life if presented by the youngest unmarried female in the family." It is a purple belt of six rows, with white diagonal lines and open hexagons.

Fig. 246 is of much interest. It is nine rows deep, and has six human figures in black, joined by a dark line. Midway is the council fire. Mrs Converse obtained this in 1882, of Martha Hemlock, an aged and prominent Cattaraugus Seneca, who had it for 60 years. It has been called the women's nominating belt, they having the privilege of naming the chiefs. This is now done with strings or unceremoniously, but women's belts for other purposes are on record.

Fig. 172 is a Mohawk belt from Mr Holmes's figure, and was obtained by Mrs E. A. Smith from the Mohawks. It is 26 inches long, with an extreme width of 3 inches, or 11 rows. The design is curious, and suggests one of the belts in Paris. From the center it diminishes in width toward one end, where it is five beads wide. The open white hexagons show that this was probably the original design. A doubt is suggested by the loose buckskin thongs. It may once have been symmetric, having the other end correspond beyond the open central space.

Walter C. Wyman, of Chicago, furnished pictures of his seven interesting belts. Fig. 274a, he remarks, "is called the Sir William Johnson dish belt, sent by the Indians in Canada to notify the friendly tribes of the existence of food at four points, Forts Stanwix, Niagara, and two other points unknown to me now. Of course all these points of information are fragmentary and dreamy, but are as they came to me. There seems to be no authentic reading of belts, and their mission is imaginary so far as any present day interpreter is concerned." This is a counterpart of the Parker belt, except in the number of hexagons and width, having nine rows. In some cases the Five Nations used but four of the national figures, as in this case.

Fig. 275 is a defective white belt of 15 rows, with one small, open diamond and four large. Mr Wyman said: "This I secured from an Indian at the ancient town of Cross Village, Michigan. It was called by him a Mohawk peace belt, but I could get very little information from him."

Fig. 276 "is the Black Hawk belt, sent by this noted chief to the tribes at Traverse bay, Mich., with a message that their band should remain neutral during the campaigns and revolts at Michilimackinac." This has the frequent double diamonds on a dark ground, and is 10 rows deep.

Fig. 277 is a very fine Oneida belt of unique character, and 21 rows wide. The design suggests Grecian art. Six double squares of white beads are united, and six white diamonds are in the center of these. It is nearly perfect. The owner says: "This was long in the possession of chief *Skenando*, probably his lifetime, and came to him from the old chief *Skenando* before him, as a silver pipe was kept with the belt, inscribed to 'Skenandoah,' presented by Gov. Tompkins of New York. . . The belt has been known as the tribal belt of the Oneida tribe, and, farther, the legend went that without this belt no council of the Six Nations could be had, or was official. The belt is well preserved, woven with sinew, the beads have a high polish from ages of handling, and I conclude dates back at least two hundred years." The six diamonds probably included the Tuscaroras, who lived in the Oneida territory, and were thus more likely to appear on an Oneida belt than elsewhere, but, as they came to New York about 1712, this would make the belt of later date. Skenandoah was not prominent in the colonial period, and the writer is inclined to make it as late as the revolution. The silver pipe was the old chief's pride.

The following three are Penobscot belts. Fig. 279 is said to have "belonged to Molly Molasses, sent to her parents from the young buck's parents that wanted her in marriage. Molly was one of the characters about Oldtown, Maine, looked on as the medicine woman of the tribe. She lived to be 92 years old." It is a defective belt of seven rows of dark beads. Part of the white pattern suggests letters.

Fig. 278 and 280 are of a very novel character. They are of dark beads edged with white, and the rows cross the belt diagonally instead of the usual way. Fig. 278 has velvet strings, and fig. 280 has elliptic beads on one border. Mr Wyman said these "are called marriage belts, and came to me directly from the families to whom the belts were descended by marriage, passing from generation to generation at the marriage of the oldest child. The outer edge of one of the belts is made from a different variety of seashell, the only ones I have ever seen. The three belts came from Mrs Lizzie Nicola, one of the old-time Indian families of the Penobscot tribe."

Acts with. The French always termed wampum belts collars of porcelain, and they were used in many ways. Among the Hurons in 1636 they appeared among the stakes when the ball game of lacrosse was played. The Algonquins had ceremonies much like other nations in reviving or raising dead chiefs and warriors. As long ago as 1639, when a Canadian Algonquin had been killed, if he had a wampum belt or other article of value, it was offered to some good warrior. If he took it with the name of the deceased, he was expected to go to war and kill or take some one in place of the dead man. In a different way at Oneida in 1756, Johnson gave a belt to the chief warrior, "insisting (according to the Indian Custom), on his going to war, and bringing him either prisoners or scalps to give in the Room of some friends he had lost." This act is somewhat related to the council of condolence.

When the Iroquois chiefs were at Albany in 1746, "they threw down a War Belt of Wampum on the Ground, it being the Indian Custom to deliver War Belts or make Declarations of War in that manner, this they did with remarkable Indignation intending thereby to express their Resentment against The French and their Allies, and their Zeal for the English." This act was not confined to war belts. At Canajoharie, Ap. 13, 1759, Johnson gave the Six Nations a very large black belt relating to a murder, which was answered three days later. "The Speaker then threw on the ground towards Sir William the large Belt which he gave on the 13th Inst. in a manner which according to the Indian customs was

expressive of the sincerity of what they had declared." If a proposition was not liked, the belt might lie for hours or days on the ground. To raise it was to accept the proposition. Loskiel said that, if peace proposals were rejected, "when the ambassadors return home with the refusal, the Delawares throw the belt or string of wampum thus rejected into the council house, and there it lies till some old woman takes it away."

Sometimes the rejection was vigorous. In 1691 the Five Nations rejected a French belt while at Albany. "We declare the belt of wampum given by the French venomous and detestable, and did spew it out and renounce it, and will not accept of the belt but prosecute the war as long as we live; and left the belt upon the ground in the court house yard." In 1693 imperious Count Frontenac kicked away three belts sent him by the Five Nations, and five years later flung a belt in the faces of 10 Onondaga messengers. They retorted in kind when he sent them five belts in 1699. A sachem asked for them in the council at Onondaga, "and one of the sachems got them and threw them towards him, but not so far as that sachem sat, and another Indian very scornfully kicked them at him." Quite as vigorous was the reception of the war belt which Johnson gave in 1756. "A Seneca chief laid hold of it, sung the war song and danced," and it passed on to others.

Attachments. Belts often had something attached. After the treacherous seizure of the Iroquois by De Nonville a Cayuga chief addressed Gov. Andros in 1688. "Hee presented a Belt of Wampum, with twentyeight sticks tyed to itt, to shew the number of the Indians taken by the French." At an earlier day, when Chaumonot came to Onondaga in 1655, for his second present he "made a crown of a collar, which he presented them and placed it on the head of one after another. They were at first surprised at this novelty." He made over 30 presents at one council, but the present of the faith was "the most beautiful of all which the father showed." His ninth present was a tree appropriately prepared, lopped branches showing dead chiefs and growing boughs their children. "They regarded more attentively this piece of wood than the porcelain which was attached to this present."

In 1745 Gov. Clinton gave the Six Nations "a large Belt with the figure of a Hatchet hung to it." In 1757 Sir William Johnson gave them a large belt, with the seal of his office on a parchment tied to it. The same year while in Canada the Oneidas presented the Cayugas with a belt and an English scalp attached, English scalps never before having been in the Cayuga cabins. Scalps were often attached to belts, and scalp belts were given in place of Indians killed. At Oswego in 1766 an Onondaga chief gave a Cherokee scalp to Johnson, "after painting the scalp belt of wampum which hung to it." On the death of the Half King in 1756, a stick with an Indian scalp and two black belts at the end, was presented at Carlisle. Several examples of attached belts occurred that year in Pennsylvania. Two belts and two strings tied endwise were used on one occasion, and a belt of eight rows had two strings attached on another. The same year at Easton two belts tied together signified that *Teedyuscung* and Newcastle were joint agents. The former chief, at the same place the next year, gave a belt of 12 rows strung on cords, and also two belts tied together, with an explanation of the ancient mode of making an everlasting peace. In 1765 Pontiac sent his large pipe to Johnson with a belt attached, calumets being highly esteemed by nations farther west. In 1768 the Cherokees gave belts and calumets. One belt had a calumet and eagle's tail attached.

One curious mention of a chain belt occurs in the Paris documents. In 1682 Count Frontenac's third word to the Iroquois deputies was the "third belt of wampum in the form of a chain." This may refer to a primitive method of making these belts by tying strings together. A yet more puzzling statement relates to the council at which Fort Frontenac was founded in 1673. The chiefs addressed the count in turn, and "each captain presented, at the conclusion of his speech, a belt of wampum, which is worthy of note, because formerly it was customary to present only some fathoms of stringed wampum." Such large numbers of belts were described before this that the comment is not easily understood.

Belts were often doubled, one message being given in this way,

after which the belt was unfolded and another message was added. In one case the river Indians presented Gov. Fletcher with half a belt of wampum in 1693. *Arratio* spoke for the upper Iroquois to Frontenac in 1697. His second belt was divided between two messages. By one half he expelled sorrow from *Onnontio's* heart; by the other he arrested the hatchets of the young Onondagas. To three strings of wampum, each bearing a message, Count Frontenac joined a belt to the Onondagas in 1697. Each half of this carried a message. "The belt was folded double. The one halfe was a token of the affection he had for *Odatsigtha*, and the other halfe was to show the Five Nations the inclination he had to make peace with them." The Onondagas resolved to send two chiefs to Canada "with a belt of wampum folded double."

Colden gives the only account of the great council held at Onondaga in January 1690. The principal Iroquois chief held one of the belts sent by Frontenac, by the middle, and gave one message. Then he said, "What I have said relates only to one Half of the Belt, the other Half is to let us know, that he intends to kindle again his Fire at Cadaraqui next Spring." A captive Cayuga chief sent a number of belts at this time, one of which was folded. His address appears without date in the *Documents relative to the colonial history of the state of New York*. The greater prominence of belts of this kind in Canada was probably due to the scarcity of wampum there, all of this coming from New York. Indeed Frontenac according to his enemies did not approve the use of wampum. In 1679 they wrote to France of what he did when the Ottawas brought beavers to trade. "The Indians having included in their presents to the governor some old moose hides and a belt of wampum, which they appreciate highly and which the French do not value as much as they do beaver, he caused his interpreter to tell them, according to their mode of speaking, that such did not open his ears, and that he did not hear them except when they spoke with beaver. This the Indians were obliged to do in order to have liberty to trade." The same writer said that a *coureur de bois*, whom Frontenac favored, took beaver skins to Albany in order to get wampum to trade with the Ottawas.

While David Zeisberger was at the Monsey town of *Goschgoschünk* in 1768, a mysterious message came from the Senecas, opposing him. It was accompanied by "a string of wampum, a stick painted red, with several prongs, and a leaden bullet." Another followed with "a bunch of wampum, or as many strings as a man can hold in one hand."—*De Schweinitz*, p. 342

R. C. Adams, a Delaware of the Indian territory, relates a story of an early belt in the *Report on Indians taxed and not taxed*, p. 298. Though apocryphal, it is none the less striking.

Many hundred years before the white man came to what is now the United States, a treaty of friendship was made with other Indian nations, and in memory of that event a wampum belt was presented to the Delaware chief, with a copper heart in the center of it. That belt was seen and acknowledged by William Penn, afterwards by British generals, later by Gen. George Washington, and from that down to about 45 years ago, 1841, by every Indian tribe in the north and east. In presenting the belt at a grand council the Delaware chief would always hold it out, and ask if any one could detect any change in the heart, whereupon it would be passed from one chief to another, and from one brave to another, and returned, and each chief would respond that the heart had remained unchangeable and true, although the sinews that held the wampum may have become rotten with age, and had to be replaced with new ones. Although a wampum may have fallen off and thereby a figure in it been changed, yet the heart was always just the same. After exhorting for a time on the subject they would renew their bonds of friendship, smoke the pipe of peace and depart. From what I can learn, Captain Ketcham had this wonderful belt when he died in 1858. My informant thinks it is in the possession of the Delawares who are now with the Kiowas and Wichitas.

It is a pity that this pretty story has no historic foundation, and could not have been true as far as age is concerned.

In his *History of Jefferson county*, p. 39, F. B. Hough says that the Oneidas, "by a definite treaty held in September 1788 conveyed the greater part of their lands to the state by the following instrument, the original of which is preserved in the secretary's office; it is on a sheet of parchment about 2 feet square, with 35 seals of the parties; appended to it is a string of wampum, made of six rows of cylindrical white and blue beads, strung upon deerskin cords. This

belt is about 2 inches in width, and nearly 2 feet long." As this was written in 1854 by a thoroughly competent person, it was thought that an illustration of this attachment might be readily procured. On application it was found that the parchment and belt had disappeared, a copy filling the place of the former. The practice of attaching a belt as the seal of a treaty seems to have been common here after the colonial period.

Abundance. The size and abundance of belts form a notable feature. In Canada the supply of wampum was naturally smaller than in New York, but still it might be called large till the Iroquois overthrew the Hurons and the Tobacco and Neutral nations. A small nation on the Ottawa river levied toll on all travelers, and they were known as Savages of the Isle. Out of these gains they were able to present the Hurons with 23 porcelain collars in 1636, and as many elsewhere, in asking aid to revenge the loss of 23 of their people, killed by the Iroquois. The presents were refused. The wampum or porcelain used by the Hurons in personal decoration may have been larger beads. Belts were less in use by them. When they sent messengers to the Andastes in 1647, "that they might have pity on a land that was drawing to its end," no belts are mentioned. Instead there were "the most precious rarities of this country, which our Hurons had taken to make a present of them, and say that it was the voice of their dying fatherland."

This difference came out more plainly when they replied to the Onondaga embassy in 1647. The Huron ambassadors "carried like presents in reply to those of the *Onnontaeronnon*. Our Hurons use for these presents peltries, precious in the hostile country: the *Onnontaeronnons* use collars of porcelain." The Onondagas sent a new embassy with the returning Hurons. "Beside the captives that Jean Baptiste was taking back he was loaded with seven great collars of porcelain, each of which was of three and four thousand beads." These were new presents.

Leclerq says that in 1617 the Indians offered a number of wampum collars to light a council fire at Three Rivers and another at Quebec. They gave at the same time another present of 2000

beads to serve as wood and fuel, and added a large belt to these.—*Leclerq*, 1:126. A similar incident is related of the Mohawks in 1646; and this writer seems to have mistaken the date. The Algonquin use of belts in Canada is often mentioned. To some extent this family used wampum in this form in New York. Among the plunder in one Indian fort in the Esopus war of 1663 were 31 belts and some strings of wampum.

Negotiations with the Iroquois brought a great deal of wampum into Canada. When the Mohawk chief, *Kiotsaeton*, came to Quebec in 1645, "he was as it were covered with porcelain." He brought 17 collars or belts, part on his body, part in a little sack. Of the 10th belt it is said, "this collar is extraordinarily fine." By the 13th he referred to some Huron preparations for peace proposals five years before, when that people "had a sack full of wampum all prepared to come to seek the peace." This they should have done. After this Mohawk belts often came to Canada in a less formal way. The same year ambassadors brought 18 of these. The first Onondaga presents made at Quebec in 1653 were but seven in number, and consisted of wampum and beaver skins. A great belt from the Oneidas accompanied these. At the same time the Mohawks made eight presents. The next February the Onondagas came again with six great belts for the French. They secretly gave four others to the Hurons. This was preliminary to another council in May, when the Onondagas presented 20 belts to confirm the peace. Father Le Moyne's first visit to that people soon followed. After he had made his 19 presents, the Onondaga speaker returned thanks for the Onondagas, Mohawks and Senecas by two great belts for each. An Oneida chief also returned thanks by four great belts.

In September 1655, another Onondaga embassy came with "24 collars of porcelain, which to the eyes of the savages are the pearls and diamonds of this land." Chaumonot and Dablon returned with this party and made their presents. The Onondagas replied, casting their first two presents at Chaumonot's feet. "The third and the most beautiful of all those which appeared here, was a collar composed of seven thousand grains of porcelain, which was as

nothing in comparison with his words." Four great belts were given. Others followed from a Cayuga chief. During the stay of the French colony at Onondaga lake, one of the most touching incidents was the presentation of eight belts by the Onondagas, on the death of two Frenchmen in 1656. This was in keeping with their usual customs, for "these nations make each year reciprocally presents of friendship in the councils and public assemblies."

It will suffice to mention a few out of the many belts recorded in the Jesuit *Relations* and in various colonial documents. In 1646 Father Jogues gave a belt of 5000 beads to the Mohawks, to break the bonds of a French child, and another for the deliverance of a Huron girl. He also gave some Onondagas 2000 beads to announce the coming of the French. In 1661 a Cayuga ambassador came to Montreal and "displayed 20 beautiful presents of porcelain, which spoke more eloquently than he, though he failed not to speak with good grace, and to deduce all points of his embassy with spirit." When *Garakontié* arranged an embassy of Onondagas and Senecas in 1664, he "made for this a prodigious collection of porcelain, which is the gold of the country, in order to make us the most beautiful presents which had ever been made us. There were among others a hundred collars, of which some were more than a foot wide." The embassy was attacked and scattered on the way to Canada.

Among belts sent by the French in 1670, on account of the murder of some Oneidas and Senecas, the most beautiful was one of 5000 black beads intended for the latter nation. The murderers were punished; but the missionary shrewdly adds, "They approved of the governor's justice, but I nevertheless believe that they would have better liked 10 collars of porcelain than the death of these three Frenchmen." Chauvignière, called *Raghquanonda* by the Indians, brought a French belt to Onondaga in 1747, which was 7 feet long and 6 inches wide. The Iroquois presented several belts at Albany in 1682, which were 15 and 16 rows deep. In 1713 four southern nations came to Onondaga with 20 large belts and six strings, and sent 10 more belts the next year. The Nanticokes sent

a belt to the Delawares in 1756, which was a fathom long and 25 rows wide. Both these nations paid a large annual tribute of wampum to the Five Nations, amounting to a score or more of belts from each. Many of Johnson's belts were quite large, and in 1756 the Mohawks gave him one which was called a broad belt. No belts on record were as wide as two now in the state museum. Though there are a few instances of very wide belts, it is probable that, where large numbers were brought together, the usual length and width prevailed. Perhaps the council of Scioto of 1771 alone rivaled *Garakontié's* collection, as a hundred belts were ready for this some time before the council met.

There are more belts now in existence than is commonly supposed. Several have come to the writer's notice, and David Boyle writes him that of recent Canadian ones "some 50 or 60 belts and strings have disappeared," and sensibly adds: "One answers our purpose as well as a dozen or a score." This philosophic remark may be qualified by the fact that belts vary much in form and symbols, however rarely their history can be traced. No one will object to a good supply.

Uses of wampum

Wampum was used in many ways. In 1646 the Mohawks "offered a fathom of wampum to kindle a council fire at Three Rivers, and a great collar of 3000 grains to serve as wood or fuel for this fire. The savages make no assembly unless with a calumet of tobacco in the mouth, and as the fire is necessary to take the tobacco, they almost always light some in all their assemblies."—*Relation*, 1646. This seems the circumstance mentioned by Leclerq, as occurring much earlier, but in the same words. (*Leclerq*, 1:126)

In 1657 a returning Onondaga war party was "regaled with many thousands of porcelain." At the same place in 1670 Father Milet used wampum in teaching. "During one week I placed before their eyes different strings of porcelain to mark the number and diversi-

ties of the things I was teaching them. . . At other times I suspended by the same cord a beautiful collar of porcelain before the altar of my chapel to teach them that there was only one God. . . Some strings of bugle beads to explain the liberality of which Heaven made use in rewarding all good actions."—*Relation*, 1670. He used these as rewards himself.

It was noted of wampum and other presents in 1665: "They give to each of these presents a name, very fitting in their tongue, to signify in brief all that they wish to say, in order that those presents which they preserve may also preserve, by this name, the memory of the things which they signify." In 1656 it was also said: "Each present has its different name, according to the several effects which they claim to imprint in their minds and in their hearts." In accordance with their ideas of the soul, "they usually make one present to put back the reasonable soul in the seat of reason."

In the account of a conference at Montreal in 1756, it is said in a note:

These belts and strings of wampum are the universal agent among Indians, serving as money, jewelry, ornaments, annals, and for registers; 'tis the bond of nations and individuals; an inviolable and sacred pledge which guarantees messages, promises and treaties. As writing is not in use among them, they make a local memoir by means of these belts, each of which signifies a particular affair or a circumstance of affairs. The chiefs of the villages are the depositories of them, and communicate them to the young people, who thus learn the history and engagements of their nation. *O'Callaghan. Colonial hist.* 10:556

While all presents had names and meanings, it was observed in 1642 that three belts were often given in freeing a captive, in order to break his three bonds, the legs, arms and waist. This was not a ransom, which was more personal, but was the gift of the nation setting the prisoner free. This was among the Algonquins. In raising or reviving a chief the Hurons made presents for the principal parts of the body.

As the Indians enjoyed fun, the Delawares threw wampum on the ground for a scramble at some of their feasts. The Hurons had a funeral game for prizes, much like the college cane rush. At the *Nipissiriniens* dead feast in 1642, still farther northwest, the bones

of the dead were "inclosed in cases of bark, covered with new beaver robes, enriched with collars and scarfs of porcelain." While wampum was among the funeral presents, the prizes on the greased pole were a kettle and a deerskin.

A picture of an early New York council is taken from the second English edition of Baron La Hontan's travels, and the wampum belt in this does not differ from later examples. M. De la Barre came to the mouth of the Famine, now Salmon river, in 1684, and held a council with the Onondagas. *Hotreouati*, called Garangula by Colden, was the Iroquois speaker, and his sarcastic address is famous in the annals of Indian oratory. It has been questioned whether La Hontan was really there, as his name does not appear in the list of officers. Few of these were mentioned, and he was then not 17 years old, and had been less than a year in Canada. In later days he was given to romancing, and this has thrown discredit on other things. The question is whether this is a true picture of the only council held by a French governor on New York soil. Fig. 282 shows this.

La Hontan used the name which the French had given the Onondaga orator. He mentioned the positions of the two principal actors. "The Grangula sat on the east side, being placed at the head of his men;" that is, in front of them to the east. De la Barre "sat in his chair of state," on the opposite side, and in front of his tent. This required a camp on the north side of the river, which flows into the lake from the east. On that side the writer found high sand dunes where the camp is placed in the plan, and a level space where the council is represented near the lake. The picture may be accepted in its main points, and in the council belts were freely used. The plan is given for its local interest. The orator holds the calumet. Lafitau represents another council where belts are held.

In councils and elsewhere significant acts often accompanied the use of wampum. When visiting Canada in 1645, the Mohawk chief *Kiotsaeton* attached a belt to the prisoner Couture's arm, with an expressive pantomime, and then gave him his freedom. To show his friendly feelings, he afterward bound himself to a Frenchman

and an Algonquin, with an unusually fine belt. At a later council, that year, a Mohawk "took a Frenchman on one side, an Algonquin and Huron on the other, and holding them bound with his arms they danced in cadence, and sang a song of peace with one strong voice." This kind of pantomime was strikingly employed at the reception of the French at Onondaga in 1655. With his third present *Garakontié* took Chaumonot by the hand, made him rise and led him to the midst of the council. Then he "throws himself on his neck, embraces him, hugs him, and, holding in his hand the beautiful collar, making a belt of it for him, protests in the face of heaven and earth that he wished to embrace the faith as he embraced the father." A Cayuga chief also sang with his present. "He explained what he meant by his *Gaianderé*, which signifies among them very excellent thing. He said that that which we call among ourselves the faith, ought to be called among them *Gaianderé*, and in order the better to signify this he made the first present of porcelain."—*Relation*, 1656

The speaker held the belt while speaking. When the Rev. Mr Kirkland stopped at the Onondaga council house in 1764, one of the Indians with him rose and took the belt in his left hand, leaving the right free for gestures. He spoke for nearly an hour. "At the end of every sentence they expressed their assent, if pleasing to them, by crying out, one after another or 20 at once, *at-hoo-to-yes-ke*, i. e. 'It is so'; 'very true'."—*Lothrop*, p. 163. After this a response was made. At the Seneca council house the belt was handed round. Some stroked it with the hand and said a few words; others only looked steadfastly at it. This took full 20 minutes.—*Lothrop*, p. 167

These marks of approval were customary. The *Pennsylvania colonial records* describe the giving of a belt by the governor in 1731, as a league and chain of friendship with the Six Nations. "The Indians, on receiving the Belts of Wampum & the Present, expressed their Thankfulness by a harmonious Sound peculiar to them, in which those of each Nation now present joyned alternately, & they repeated the same with great Seeming Satisfaction."

Some peculiar forms were used in early councils which have not

yet fully disappeared. In a council held in the fort in Quebec in 1645, the hanging of wampum was described. "In the middle was a little space where the Iroquois had placed two poles, and stretched a cord from one to the other. Attached to this were the words they bore, i. e. the presents. There were 17 porcelain collars, partly on his body, partly in a little sack." The orator took a collar in his hand and spoke, and then promenaded and sang. Le Moyne adopted the promenade when he made his 19 presents at Onondaga in 1654. "At each of my presents they made from the bottom of the chest a powerful ejaculation as a testimony of their joy. I was the full space of two hours making all my harangue in the tone of a captain, promenading after their custom like an actor on the stage." A council was held with a New England nation at Quebec in 1652, in the Jesuits' hall. "They began by the exhibition of the presents, which they stretched on a cord which extended through all the hall. Those were only very large collars of porcelain, bracelets, earrings, and calumets or petunoirs."

This hanging up of presents is noticed by English writers. At a conference with Lieut.-Gov. Evans of Pennsylvania, in 1707, "a Nanticoke Indian took into his hands a Belt of Wampum from a Line, whereon there was hanging nineteen others, and several strings of Beads."—*Penn. Minutes*, 2:387. When John Bartram was at Onondaga in 1743, Conrad Weiser delivered three broad belts and five strings of wampum. "There was a pole laid across from one chamber to another, over the passage, on which the belts and strings were hung that all the council might see them."—*Bartram*, p. 60. Weiser also mentioned this. "All the wampum was hung over a stick laid across the house, about six feet from the ground." There are other obscure references to this. In 1699 Gov. Bellomont's propositions with "seven hands of wampum were hung up in the proposition house." Two years before Count Frontenac gave two belts to the Foxes on account of the killing of two of their chiefs by the Iroquois. These were "to hang in the cabin of the dead, and to remain there until this vengeance be consummated." The Iroquois naturally were pleased with attention to such forms, and expressed their gratitude to Sir William Johnson

in 1768 for observing one of their ancient customs. He had given them a string of wampum in a pouch.

One Iroquois custom was mentioned at a council in Montreal in 1756. "The Cayuga orator terminated the session by calling, in a loud voice, each nation according to its rank, and, when he named it, the chief thereof uttered the cry of thanks, which was repeated in cadence by all the Indians." This appears elsewhere, but not the rest. In regard to the belts presented by the Five Nations, "each of them furnished in turn and contributed equally to that expense, and as the Indians are very particular in exhibiting the share they possess in these presents, at the end of each speech, the orator is careful, when handling the belt, to cry out the name of the canton, or nation, which has furnished it."—*O'Callaghan. Colonial hist.* 10:563

Father Milet notes this feature in his interesting account of making ready for a council, which is contained in the second chapter of the *Relation* for 1673-74. He wrote from Oneida (N. Y.) and said:

In order to maintain peace among themselves and make amends for faults committed by individuals, the Iroquois nations have instituted certain embassies which they reciprocally send one to another. In these they exhibit their finest porcelain collars, with the utmost magnificence in their power; and their captains endeavor to display their eloquence, both in relating their fables, their genealogies and their stories; and in suitably exhorting the ancients and warriors, according to the exigencies of present affairs. In each family there are a certain number of men and women of note, who represent, as it were, the nobles of the land. These are called *Agoiandères*, and they provide the porcelain and the collars. When it is intended to send an embassy to other nations, the families first meet, each in private, and collect all the porcelain that they have to give; then each family displays to the others what the richest among them have supplied. Then the oldest or most eloquent of the family makes an harangue—either standing erect, or oftener walking about. At times he speaks in a lugubrious tone, drawling out his words; at others in a sharp tone, fitted to move them; sometimes in a joyful voice, intermingled with songs, which the other ancients repeat in harmony. At the conclusion he shows all these collars as so many deceased persons, formerly of note, who come back to life to urge all those who are present to preserve the country for which they formerly gave their life and shed their blood. All is ended by a feast, and by the offering of many presents, which they make one to another. The ancients of the other families thank him who has spoken, and on the following day they do the same

thing to him, each in their turn. After each family has thus displayed its collars and made its harangue, they all assemble on a day determined, and hanging up the collars in order, each on its own side, they tell one another who are those who have given these collars. "Such a one," they say, "has given this one, or so many thousand beads; another has given these two, these three; another these four collars." Finally they place all these collars together, and put them in the hands of the ancients, who remain their masters. The council is then held to consider how many shall be carried to each nation, to whom they ought to go in embassy, and what affairs should be treated. Some days before the departure of the ambassadors they send a present of porcelain to ask that they would prepare a mat for them to sit and lie upon, and to make known the day of their departure or arrival.

As soon as the news reaches a village, the old men assemble; on their part the young men go to the chase, and everyone contributes the best that he has to regale the ambassadors.

When they have arrived about a musket shot from the palisade, they light a fire in token of peace, in the place where the ancients of the village go to attend them; and after having smoked some time, and received the savage compliments which they make to one another, they lead them to the cabin which is assigned them. They march very gravely and in single file. One of the most notable marches at the head, and he pronounces a grand suite of words which they have received by tradition, and which they repeat after him. The ambassador who is to speak marches last, singing a rather agreeable air, and continues his song until in his cabin, where he also makes five or six turns, singing. Then he sits down the last of all. Then they renew the testimonials of friendship and make presents to dispel fatigue, to wipe away tears, to remove scales from the eyes that they may more easily see each other; finally, to open the throat in order to give a free passage to the voice. These presents are followed by food, which they serve to the ambassadors by way of refreshment. Then they ask them news of their nation, and they reply by recitals which sometimes last all night. The following day they rest, and the third day they make their harangue, show their collars and the subject of their embassy. They answer them the following day, after a public dance which is made around the collars. The whole is terminated by a feast and by the thanks which they mutually make.

The opening ceremonies probably always included the things above mentioned, but otherwise varied much. A single string or belt might include several messages, or be devoted to one. By belts it was usual to dispel the clouds and make the sun appear, to take briers out of the paths, to cleanse blood, to restore the mind,

to bury the hatchet, to kindle the fire and to sweep the hearth. In later times a belt commonly uprooted a tree long enough to bury all troubles under it. With simple addresses all this preliminary wampum was delivered, in order that the council might open fully prepared for harmony of action. These variations are a pleasant subject of study by themselves, and in them will be recognized the truth of Johnson's words in 1771, that the Indians " from their having been next to our settlemts for sevl years, & relying solely on oral Tradition for the support of their Ancient usages, have lost great part of them, and have blended some with Customs amongst ourselves, so as to render it Extremely difficult, if not impossible to Trace their Customs to their origin, or to discover their Explication."

Reference has been made to the exclamations with which wampum was accepted in councils, and many examples might be cited, but one will suffice in which all is described. In the *Collections of the Massachusetts historical society*, 1st ser. v. 7, is *William Marshe's journal*, kept while at a council at Lancaster (Pa.) in 1744. On page 185 he says:

Edmund Jenings, esq. as first commissioner for Maryland, made a speech to the Six Nations, which was interpreted to them by Mr Weiser. Whilst Mr Jenings delivered his speech, he gave the interpreter a string and two belts of wampum, which were by him presented to the sachem *Cannassateego;* and the Indians thereupon gave the cry of approbation; by this we were sure the speech was well approved by the Indians. This cry is usually made on presenting wampum to the Indians in a treaty, and is performed thus: The grand chief and speaker amongst them pronounces the word *jo-hah!* with a loud voice, singly; then all the others join in this sound, *woh!* dwelling some little time while upon it, and keeping exact time with each other, and immediately, with a sharp noise and force, utter this sound, *wugh!* This is performed in great order, and with the utmost ceremony and decorum, and with the Indians is like our English huzza!

The sound may still be recognized in Iroquois meetings in New York.

David Zeisberger noted that " the custom of adoption into a family by force prevailed among various tribes. In case of the death of a son or daughter, the parents, with a black belt, hired a captain

to procure a substitute. Collecting his band, this captain went out as for war, and took a prisoner. If he was a white man his head was shaved and painted; in every case the belt was wrapped around his neck, and he was carried off to the bereaved family, which received him with all affection."—*De Schweinitz*, p. 620-21

In Stone's *Life of Joseph Brant*, 1:17, will be found several extracts from Sir William Johnson's diary, relating to a kindred custom. May 22, 1757, he sympathized with a Canajoharie chief, who had lost his mother, and "expected he would remove his concern by going to war, and bringing either a prisoner or a scalp to put in her room, or stead, as is usual among Indians. Upon this Sir William gave him a very fine belt to enforce his request."

A chief brought him four French scalps, May 18, 1758, and said: This scalp (the one with a black belt tied to it painted) I desire may be delivered to my wife's uncle, old *Hickus* of Canajoharie, to replace her mother, who was his sister. This scalp (meaning another upon the same stick, with a bunch of black wampum tied to it) I send to the aforesaid man to replace *Eusenia*, who was *Taraghyorie's* wife. This scalp (meaning a scalp by itself on a stick, with a bunch of black wampum) my cousin, Captain Jacob, gives to replace old King Hendrick of Canajoharie. This scalp (meaning the small one tied round with a bunch of wampum) my said cousin gives to replace *Hickus's* son, who was killed at the battle of the lake under your command.

Small wampum was one decoration of the white dog at the New Year's feast, and sins were confessed on strings of this at that time.

Glass beads

Glass beads were introduced at an early day but had not the same esteem as wampum. They had a moderate use in a public way. In 1633 Le Jeune presented a string of these to three chiefs of different nations in Canada, and glass tubes were among the Huron purchases of that year. In 1635 Brébeuf catechised the Huron children and gave a little glass tube or bead to those who did the best. Bruyas did the same at Oneida in 1670. "Whoever knows how to repeat on Sunday all that is said during the week, has a string of bugle or two little glass beads, or two brass rings." This was a common practice, and the tubes may be several inches long.

When Le Moyne spoke at Onondaga in 1654, two parts of his first word were "100 little tubes or cylinders of red glass, which are the diamonds of the country," and a great collar of porcelain. The 15th present was of these glass tubes. In this he makes these beads equal in value to wampum, but they were rarely used on public occasions. Frontenac, however, gave the Iroquois some packages of glass beads in 1682. They were his fifth word for some Onondaga women. The English also presented the Onondagas with 30 strings of white glass beads in 1687, and 75 similar strings were used in a preceding conference. One Canadian belt, fig. 178, is of glass beads, but this is exceptional, though others might be named. Wampum had an official character belonging to nothing else.

Condolence

The ceremony of condolence, now including the raising of a new chief, is one of the most interesting of surviving Iroquois customs. A similar ceremony was found among most Canadian tribes, involving the idea of a resurrection of the dead chief in the person of the new. In some nations the change was complete. The new chief abandoned his old name and took that of the deceased, assuming his family relations and duties. His old clothes were removed and new garments were given him. Among the Iroquois the change was less complete. The principal chiefs had official names, and the new chief took that of the dead without necessarily losing his personal name, a practice much like our own. At an early day the condolence for a dead Iroquois chief did not usually include the raising of the new one, which made a separate affair. Almost all councils were opened with a general condolence, but there were special ones for this purpose alone. The earliest one of which we have any particular account among the New York Iroquois is that given by Pierron, after the battle between the Mohawks and Mahikans in 1669. It has been mistaken for something like the Huron feast of the dead, of which we have no historic trace in New York. Unfortunately the missionary made needless trouble about what he saw, and withdrew without seeing all. The story will be found in the *Relation* of 1670. Enough will be quoted to show its connec-

tion with the modern condolence. In that the other nations come to comfort the mourning people, and there are reciprocal speeches. The visitors are met outside the town, and some ceremonies take place there. The names of the original chiefs are recited and their virtues praised. Pierron said: "Our sachems having invited me to their ceremonial of the dead, held at *Gandaouagué*, I went to gratify them. The assembly was composed of Onondagas, some Oneidas, and the most eminent of *Agnié*. These were separated from the others according to custom. After the Onondaga had spoken, our *Agnies* discoursed of their fables and superstitions." The Frenchman did not show the politeness of his nation, and the Mohawks were naturally surprised at his interference. One of their chiefs asked him to "withdraw from their company, since they were about to sing according to their custom. It is true that I could understand nothing they sung and would not even countenance it," but he went to the Onondagas and remained awhile with them. "After the ceremony, which lasted for the space of five hours, I went back to the village without waiting for the rest of the ceremony, which belonged to our *Agnies* to terminate."

There are many early references to the minor and greater condolences, and those familiar with the present ceremony will readily see the likeness and difference. No business could be transacted till the dead had been condoled, nor could the mourning nation appear in council till this was done. Just after the French came to Onondaga in 1656 a chief died, and the council could not be held till the town was expiated. One present dried the tears of the Onondagas; another cleansed the council mat. Both French and English soon took a hand in these ceremonies, and there can be little doubt that Johnson modified and enlarged them. The death of two Onondaga sachems had not been condoled in 1697. The following year the Onondagas had not recovered their senses. "The Lieut.-Governor according to ye usual ceremony, gave a bunch of Wampum, condoleing ye Sachems losse and approveing what choice they should make among themselves." At Onondaga in 1701, the Onondagas announced the death of a sachem and offered another with the same name, giving each nation a bunch of wampum. The

Cayugas made a like announcement with similar strings. At Albany in 1737 the four nations present wished public business deferred till Monday, "because they would this day Condole the Death of the two sachems who lately Dyed According to the Antient Custom of their Ancestors and until this was done they were like Children under Age, who cannot Act in publick Affairs."

Wampum was the proper medium in condolences, though other presents were used. Some Cayugas came to Albany in 1697. They said the Senecas had lost several young men in war, and added: "'You know our custome is to condole ye dead by wampom, therefore we desire you give us some for these Beavours;' so laid down ten Beavr skins. The wampum was imediatly given them for the said skins." Two days later some Seneca chiefs came and exchanged beaver skins for condolence wampum. It is indispensable in condolence councils now.

Col. Johnson appreciated the importance of having a part in the condolence. In 1749 he sent Arent Stephens to Onondaga to give "an account of the Peace, which requires a good deal of Ceremony in their way." Then, in Gov. Clinton's name, he was "to condole the death of two old Sachems, one an Onondaga the other an Oneida, and appoint two others of the best, in their room. This ceremony is also attended with a great deal of form; it was always neglected in the late Commissrs time, which gave the French an opportunity of doing it, & appointing such in their room as would do every thing for their interest. Wherefore I shall put a stop to that now." He did so as far as he could, and for the time may have improved on the old ritual. The Onondaga chief, Red Head, thanked him for his interest in 1755, with a string of wampum. "We are much obliged to you for renewing our ancient forms. You have Records of these things, and we thank you for putting us in mind of them by clearing this Council place." He was afterward a prominent figure in many condolences.

The most fully described of these was that of Red Head, or *Kaghs-wugh-ti-o-ni*, at Onondaga in 1756, of which a synopsis may be given here, as it differs much from the present usage, where no belts are used and the addresses are prescribed. June 15 at the

camp at Oneida Sir William and the principal chiefs "of every nation prepared the several speeches of condolence to be made . . . and chose the proper belts for the ceremony." On this occasion the Cayugas, as Younger Brothers, acted for the mourning Onondagas, who were Elder Brothers. June 18 the Cayugas met him and his company a mile from Onondaga Castle, where two hours were spent in arranging the formalities according to the ancient custom. "Then Sir William marched on at the Head of the Sachems singing the condoling song which contains the names, laws & Customs of their renowned ancestors." This was sung mostly by the Oneidas, who were also Younger Brothers. "When they came within sight of the Castle the Head Sachems and Warriors met Sir William, where he was stopped, they having placed themselves in a Half Moon across the Road, sitting in profound silence. There a Halt was made about an hour, during which time the aforesaid Sachems sung the condoling song." This halt is now by a fire on the roadside, at some distance from the council house. "Then Sir William marched on at the Head of the Warriors the Sachems falling into the Rear and continued singing their condoling song." His reception completed the day. The next day "the full council of all the Nations met, with Sir William at their Head, to perform the grand solemnity of Condolence for the Death" of the great Onondaga chief. This was done with 11 belts and three strings of wampum. "The whole Ceremony of Condolence ended" and was very different from the present form. The ancient song is mentioned by others, and included the names. When King Hendrick and others were to be condoled the same year, Johnson could not go, but gave the proper belts. At German Flats in 1770 the speaker of the Six Nations performed the ceremony for the dead, on Johnson's behalf, "and delivered the several belts for the several purposes on such occasions, covering the graves with a black belt, they answering with a *Yo-hah*, customary on condolences." At Sir William's own death a double belt covered his body, and a belt of six rows his grave, but this was a simple sign of mourning.

L. H. Morgan described the mourning council in the *League of the Iroquois*, p. 115-22, but left out several striking features. He

styled it *Hen-nun-do-nuh'-sch*, literally a mourning council, and his description is good as far as it goes. Horatio Hale devoted the *Iroquois book of rites* to this great ceremony, giving some songs in full, but also omitting some peculiar and prominent ceremonies. In a paper on an "Iroquois condoling council," read before the Royal society of Canada in 1895, he gave a full and excellent account. This was published in the transactions for that year. The Onondagas term it *Ho-te-ne-ko-kah-nā-wax*. The writer attended a condolence held by them in 1895. His account will be found in the *Journal of American folk-lore*, 8:313. His description of a Tuscarora condolence appears in 4:39 of the same. These will be summarized, as wampum is not conspicuous throughout.

The Elder Brothers take charge for the Younger, and *vice versa*, and send out invitation strings with tally sticks of days. The condolence is held in the council house of the mourning nation, or one lent to it for the occasion. In 1895 the Onondagas gave the use of theirs to the mourning Oneidas and others, but took principal charge of the ceremonies themselves. In the same way chiefs are often lent to sing the condoling songs in an emergency. The condolers formerly assembled at some distance from the town, but now on some road leading to the council house, till summoned to proceed. Formerly at the wood's edge, but now half way to the council house, a fire is built, and there the mourners wait for their visiting friends, who march on in double file, the leaders singing the condoling song. At the fire the songs are continued, addresses made, and the invitation wampum is returned. In due time the mourners silently lead the way to the council house, the condoling chiefs and friends soon following, singing as before. As the song contains the names and memory of the 52 original chiefs, it is continued for some time in the council house, where the mourners sit at one end, the condolers at the other. Then a cord is stretched across the center of the house, and a curtain hung from side to side. This separates the two brotherhoods. The visitors lay a stick across the benches, and place seven bunches of wampum on this, singing for some time. The curtain is then removed, and a long song follows, the wampum being carried to the mourners at inter-

vals, a bunch at a time, and hung on another stick. The curtain is then again suspended, and the mourners sing till it is once more removed. Then they return the wampum, bunch by bunch, saying, "You said," and repeating the words already given. The new chief is then presented for installation. The wampum has no reference to the ancient song containing the 52 names of the principal chiefs, but to the shorter song here given.

The seven bunches used in the council house are here illustrated by a set lent to the writer by the Rev. Albert Cusick of the Onondaga reservation. He translated the song of the Younger Brothers for Horatio Hale, and this translation is here used, with references to the wampum in due order. Of this part of the ceremony Mr Hale said nothing. It is to be observed that changes are made according to the parties bereaved.

The speaker takes from the stick a bunch of three strings of purple wampum, about 50 beads long, carrying it to the mourners, and makes the following speech:

1 Now—now this day—now I come to your door where you are mourning in great darkness, prostrate with grief. For this reason we have come here to mourn with you. I will enter your door, and come before the ashes, and mourn with you there; and I will speak these words to comfort you.

Now our uncle has passed away, he who used to work for all that they might see the brighter days to come—for the whole body of warriors, and also for the whole body of women, and also the children that were running around, and also for the little ones creeping on the ground, and also those that are tied to the cradle boards; for all these he used to work that they might see the bright days to come. This we say, we three brothers.

Now the ancient lawgivers have declared—our uncles that are gone, and also our Elder Brothers—they have said it is worth 20—it was valued at 20—and this was the price of the one who is dead. And we put our words on it [i. e. the wampum] and they recall his name—the one that is dead. This we say and do, we three brothers.

Now there is another thing we say, we Younger Brothers. He who has worked for us has gone afar off; and he also will in time take with him all these—the whole body of warriors, and also the whole body of women—they will go with him. But it is still harder when the woman shall die, because with her the line is lost. And also the grandchildren and the little ones who are running around—

these he will take away; and also those that are creeping on the ground, and also those that are on the cradle boards; all these he will take away with him.

Now then another thing we will say, we three brothers. Now you must feel for us; for we came here of our own good will—came to your door that we might say this. And we will say that we will try to do you good. When the grave has been made, we will make it still better. We will adorn it and cover it with moss. We will do this, we three brothers.

Fig. 222 represents this speech. Fig. 223 contains some white beads, and is therefore of a more cheerful tone. The bunch is taken from the stick, as before, and borne to the mourners.

2 Now another thing we will say, we Younger Brothers. You are mourning in the deep darkness. I will make the sky clear for you, so that you will not see a cloud. And also I will give the sun to shine upon you, so that you can look upon it peacefully when it goes down. You shall see it when it is going. Yea! the sun shall seem to be hanging just over you, and you shall look upon it peacefully as it goes down.—Now I have hope that you will yet see the pleasant days. This we say and do, we three brothers.

The three strings of fig. 224 are of purple beads, and the speech follows:

3 Now, then, another thing we say, we Younger Brothers. Now we will open your ears and also your throat, for there is something that has been choking you, and we will also give you the water that shall wash down all the troubles in your throat. We shall hope that after this your mind will recover its cheerfulness. This we say and do, we three brothers.

In fig. 225 a few white beads appear. The bunch has its words:

4 Now then there is another thing we say, we Younger Brothers. We will now remake the fire and cause it to burn again. And now you can go out before the people, and go on with your duties and your labors for the people. This we say and do, we three brothers.

Fig. 226 has scattered white beads for the fifth speech.

5 Now also another thing we say, we Younger Brothers. You must converse with your nephews; and, if they say what is good, you must listen to it. Do not cast it aside. And also, if the warriors should say any thing that is good, do not reject it. This we say, we three brothers.

Fig. 227 is of purple beads, relating to the dead chief.

6 Now then another thing we say, we Younger Brothers. If any one should fall—it may be a principal chief will fall and descend into the grave—then the horns shall be left on the grave, and as

soon as possible another shall be put in his place. This we say, we three brothers.

Fig. 228 has some white beads at the end of the strings, as the last speech concludes with a call for the new chief.

7 Now another thing we say, we Younger Brothers. We will gird the belt on you with the pouch, and the next death will receive the pouch, whenever you shall know that there is death among us, when the fire is made and the smoke is rising. This we say and do, we three brothers. Now I have finished. Now show me the man.

After attending a condolence himself, the writer persuaded Mr Cusick to arrange a full set of bunches like those he had seen used, and to give him any needed information. In this and every other effort to put on record the customs of his people, his aid was given at once. Explanations of the song are omitted here, and the bunch to be distributed has been mentioned elsewhere, yet it may be said that being "valued at twenty" refers to the wampum atonement for life, and the horns to official insignia.

In Ely S. Parker's will, dated Aug. 21, 1895, he thus disposed of his wampum received at a condolence: "The wampum in this box is the credentials of my sachemship, and is designated by the Indians as the 'Great horns.' It is the wish of Amanda Poodry of the Tonawanda reservation, and the matron of the Seneca Wolf tribe, that when I die (if I die in New York city) that this wampum be placed upon my coffin until the grave is reached, when it will be taken off and handed to Mrs Harriet Maxwell Converse, who will take the earliest opportunity to restore it to Mrs Amanda Poodry." On the cover of the box was this: "Official wampum. *Donchogawa.* Sacred wampum."

Joseph Brant wrote of a council with western Indians in 1788: "As they had lost three of their chiefs, we went through our ancient custom of condoling with them, by giving about 10,000 wampum, as we could not proceed with our public business till such time as that ceremony was over." This merely expressed sympathy. A letter from Cornplanter to Major Craig is more to the point. It was dated Dec. 3, 1795, a time when some chiefs had resigned and others had been killed. He needed wampum in filling their places, and said, "Now father take Pitty on me & Send me 40 Dollars

worth of Black Wampum & 10 of White & I expect to see it in two Months & an half as I Must Make New Cheifs with it again that time to help Me."—*Penn. mag.* 14:320

Lack of wampum

It sometimes happened that Indians were out of wampum or the supply at a council ran short through unexpected business. This happened to the Five Nations when at Albany in 1714. They gave three sticks and replaced them with belts the following year. At a camp near Tuscarawas (O.) in 1764, large belts were given, but the Delawares gave bundles of 41 and 42 sticks. Colden describes another use of sticks at councils. "The art they have in assisting their memories is this. The sachem who presides has a bundle of sticks prepared for the purpose, and at the close of the message delivered to them, gives a stick to another sachem, charging him with remembrance of it. By this means the orator, after a previous conference with the Indians, is prepared to repeat every part of the message and give it its precise reply. This custom is invariably pursued in all their public treaties."

Beaver skins or other furs were sometimes used in place of belts and strings. At a council between Champlain and the Hurons in 1633 the latter used beavers alone. At another in 1691 the 21 presents of the Five Nations were almost all of beavers and otters. Western and southern nations used pipes and furs. All the colonies could not readily command a wampum supply. In 1677 Maryland wished to send bands of wampum to each of the Five Nations, but, if these could not be had, 20 to 25 guilders worth of strung wampum was to be used. At present one or two beads may be sent with a message, because of their rarity, and sometimes none can be had.

Color of wampum

The color of belts and strings was of importance. White was generally an emblem of something good, and black of affairs of a more serious nature, but this was not invariable. Black wampum, being double the value of the white, was often used to signify affairs of great importance. Several writers of the 18th century

speak of the practice of coloring belts red when the affair concerned war. This was not the only tint employed. In 1757 at a council in Pittsburg a Wyandot "spoke again upon a belt of black and white wampum, the white painted green." Loskiel says, p. 27: Neither the color nor the other qualities of wampum are a matter of indifference, but have an immediate reference to those things which they are meant to confirm. The brown or deep violet, called black by the Indians, always means something of severe or doubtful import, but the white is the color of peace. Thus, if a string or belt of wampum is intended to confirm a warning against evil or an earnest reproof, it is delivered in black. When a nation is called upon to go to war, or war declared against it, the belt is black or marked with red, called by them the color of blood, having in the middle the figure of an hatchet in white wampum.

Heckewelder says, p. 109-10: "White and black wampum are the kinds they use; the former denoting that which is good, as peace, friendship, good will, etc., the latter the reverse; yet occasionally the black also is made use of on peace errands, when the white can not be procured; but previous to its being produced for such purpose, it must be daubed all over with chalk, white clay, or anything which changes the color from black to white. . . Roads from one friendly nation to another are generally marked on the belt by one or two rows of white wampum interwoven in the black, and running through the middle and from end to end. It means that they are on good terms and keep up a friendly intercourse with each other.

A black belt with the mark of a hatchet made on it with red paint is a war belt, which, when sent to a nation together with a twist or roll of tobacco, is an invitation to join in a war." Sometimes the clay may have signified grief. The most remarkable departure from this rule was in 1756 when the French sent a string of wampum to condole the losses of the Five Nations and a white belt for the death of some of their sachems. Another instance was in 1699, when at Albany "the death of *Aquecndcro* chief Sachim of Onnondages son was condoled according to their custome by giving of some white Wampum to the Sachems which was kindly accepted."

Some attention to color is seen in Sir William Johnson's address to the warriors at Onondaga in 1756. He said: "With these

Strings of Wampum I paint you as becomes Warriors." He gave five large black strings. "With these Strings of White Wampum I feather your heads as is customary among you when engaged in war." Four strings of white wampum. Other instances might be cited.

There were notable occasions when Johnson departed from the significance of color, and he seems to have been partial to the precious black wampum. It did not mean peace but something of high importance. So he gave a peace belt of black wampum to a Chippewa chief at Niagara in 1759, and another black belt inviting him to trade at Niagara and Oswego. No intimation is there of a change of color. A war belt which he gave at Canajoharie the same year was painted.

Tribute

However strong the upper Iroquois may have been, the Mohawks were in a feeble condition till the arrival of the Dutch and the opening of trade. They at once bought guns and used them well. In an account of New Netherlands, written in 1646, we are told that "400 armed men knew how to make use of this advantage, especially against their enemies dwelling along the river of Canada, against whom they have now achieved many profitable forays, where before they had but little advantage; this caused them also to be respected by the surrounding Indians even as far as the seacoast, who must generally pay them tribute, whereas, on the contrary, they were formerly obliged to contribute to these." In 1643 a party of *Mahikans* (Mohawks?) went to collect tribute of the *Weckquaesgeeks* in Westchester county, and of the Tappans west of the Hudson river. They were armed with guns. Not much later some Mohawks took Jogues with them when going to receive tribute from subject tribes. De Witt Clinton notes that the Montauks paid tribute to the New England colonies by 1646, while the river and shore Indians soon "became subject to the Iroquois and paid a tribute in shells and wampum." Colden records this also. When De Courcelles invaded the Mohawk country in 1666, he learned that they and the Oneidas had gone to war against those called wampum-makers.

Others also became tributary. In 1707 the Nanticokes said there had been peace between them and the Five Nations for 27 years, and that they were tributary. That year they carried 20 wampum belts as tribute to Onondaga. The year before they showed a white belt with three black hands on it, which the Onondagas gave them when they became tributary. In 1712 it is said that the Delawares had long before been tributary to the Iroquois. On their way to Onondaga they called on the governor of Pennsylvania and showed what they bore. They "laid upon the floor 32 belts of wampum of various figures." They made a mental reservation. Of the belts "these last 24 were all sent by the women, the Indians reckoning the paying of tribute becoming none but women and children." In this light the Five Nations looked on them all. The Iroquois never considered their own gifts of wampum in the light of tribute. It was an honorable act, having official character.

In the *Relation* of 1660, p. 6, the varying fortunes of the Mohawks are described. They had "been so many times at the top and bottom of the wheel in less than 60 years, that we find in histories few examples of like revolutions. As they are insolent by nature and very belligerent, they have had to do with all their neighbors. . . We can not go very deep into the investigation of what has passed among them, since they have no other libraries than the memory of the old men, and perhaps we would find nothing there which would deserve light. What we learn then from these living books is that toward the end of the last century the *Agnieronnons* (Mohawks) had been brought so low by the Algonquins that there appeared scarcely any of them on the earth; that yet this few which remained, as a generous germ had so sprouted in a few years that it had reduced the Algonquins in turn to its own condition. But this state did not continue long, for the *Andastoeghronnons* made such good war upon them for 10 years that they were overwhelmed the second time, and the nation was almost extinct, at least so humiliated that the name of Algonquin alone made them shudder, and his shadow seemed to pursue them even into their fireplaces.

It was at this time that the Dutch were taking possession of these coasts, and that they took a fancy to the beaver of these people

some thirty years ago; and in order to gain them the more they furnished them with fire-arms, with which it was easy for them to vanquish their vanquishers, whom they put to flight, and whom they filled with terror at the mere sound of their guns."

This is not in accord with the popular opinion that the Iroquois ruled over the shore Indians in Hiawatha's time, and received tribute from them, but it is in exact agreement with known facts and shows why the Iroquois knew so little of marine shells before the Dutch came. Powerful enemies shut them off from the ocean. In 1630 the Mohawks were almost annihilated; before 1600 they were at a low ebb, and obliged to find strength in the Iroquois league. They could not conquer the wampum-makers then; they had little with which to buy, but time, union and opportunity brought a great change.

Atonement

On the theory that putting a murderer to death would not restore life to the victim or help his friends, the Indians often received a blood atonement, which, in their words, "covered the grave." Among the Hurons this was not always easily made. In the *Relation* for 1636 we are told that they sometimes punished the murderer in a peculiar way, after receiving some atonement in presents. These were not then a full expiation. The corpse was stretched on poles, under which the manslayer was placed. A dish of food before him was soon filled with the decaying matter from above, and to secure its removal he must make a present of 700 wampum beads, called *hassaendista*. He was kept there at the pleasure of the relatives, and when released he made another rich present, called *akhiataendista*. A Frenchman was killed by some Hurons in 1648, and the Jesuits demanded presents by a number of sticks tied together. These were given. For a Huron killed by a Huron they commonly made 30 presents. For a woman 40, because she could not so well defend herself, and because they thought women's lives worth more. For a stranger they asked still more, because frequent deaths of these might hinder trade or cause war.—*Relation*, 1648, p. 80-81

L. H. Morgan said that among the Iroquois "six strings was the value of a life, or the quantity sent in condonation, for the wampum was rather sent as a regretful confession of the crime, with a petition for forgiveness, than as the actual price of blood." Loskiel

says: "For the murder of a man 100 yards of wampum, and for that of a woman 200 yards must be paid by the murderer."

The classification of atoning gifts among the Hurons in the *Relation* of 1636, p. 119, is of interest. They were of wampum when it could be had, but other things were used. The presents were of two kinds. The first were to make peace, and to take away the desire for vengeance. "The others are put upon a pole which is extended above the head of the dead, and they call these *Andaerrachaan*, that is to say, those which are put on the pole. But now each of these presents has its particular name. Here are those of the first nine, which are the most considerable and sometimes each of a thousand grains of porcelain." The account may be summarized.

The chief who performs the ceremony speaks in a loud voice in the name of the culprit, and takes the first present in his hand as though it were an axe in the fatal wound. He says he withdraws the axe from this and causes it to fall from the hands of the avenger. This is called *Condayee onsa hachoutawas*. This is followed by the second, *Condayee oscotaweanon*, which dries up the blood. These two express regret for the murder and a wish to restore life if this were possible. The third present refers to the injury done to the nation. The speaker uses similar words, saying, *Condayee onsa hondechari*, which restores the land to its former condition. The fourth, *Condayee onsa hondwaronti etotonhouentsiai*, puts a stone over the cleft in the earth made by this murder. These affect the public and are of great importance. The fifth, *Condayee onsa hannonkiai*, levels the roads and removes the briers, so that there may be pleasant and safe intercourse. The next four are addressed directly to the relatives to console them and dry their tears. *Condayee onsa hoheronti*, he says to the father or mother, as though he would give them something to smoke, thus appeasing every passion. A seventh present restores the spirits of the mourners, and is called *Condayee onsa hondionroenkhra*. *Condayee onsa aweannoncwa d'ocweton* gives a healing beverage to the mother, and the ninth, *Condayee onsa hohiendaen*, spreads a mat for her repose during her mourning.

These were the principal presents. The others represented the

things useful to the deceased during life. They are his robe, collar, canoe, paddle, nets, bow and arrows, and many other things. With these gifts thus properly presented the relatives were usually satisfied.

There are some interesting notes on presents in general and the atonement in particular in the *Relation* of 1642, p. 53.

The presents among the peoples are all the affairs of the country: they dry the tears, they appease anger, they open the gate of the country to strangers, they deliver prisoners, they revive the dead. Nothing is said, as it were, and nothing answered but by presents; it is on this account that in harangues the present passes for a word. They make presents to animate men to war, to invite peace, to induce a family or nation to come and take a place and dwell near you, to satisfy or pay those who have received any harm or any wound, specially if blood has been shed. The presents which they make for the death of a man who has been murdered are in great number; and observe, if you please, that it is not usually the assassin who makes these but the relatives, the village or the nation, according to the quality or condition of him who has been put to death. Nor yet think that this procedure gives some liberty to mutinous spirits to make a bad stroke. Not at all. The trouble into which a murderer throws all the public powerfully restrains. Besides which, if he meets the relatives of the deceased before what he has done is satisfied, he is put to death in the field without other form of justice.

In this way the tribe was interested in the good conduct of every member, and this responsibility had a good effect.

There is an allusion to this atonement in the condoling song which is sung in presenting the wampum after the curtain is removed. "Now the ancient lawgivers have declared—our uncles that are gone, and also our Elder Brothers—they have said it is worth 20—it was valued at 20—and this was the price of the one who is dead. And we put our words on it, and they recall his name —the one that is dead. This we say and do, we three brothers."

That is, 20 strings atoned for a life, as Onondagas tell the writer. They put their comforting words on this, recalling the name of the dead and raising him to life in his successor. Hale said: "The interpreters explained that by 20 was understood the whole of their wampum, which constituted all their treasure. A human life was

worth the whole of this, and they freely gave it, merely to recall the memory of the chief who was gone."—*Hale*, p. 167

Food and burial

Shellfish formed a large part of the food of the aborigines on the seacoast. They ate many on the spot, and dried others for winter consumption. In this way were formed the numerous shell beds near the shore, usually made up of hard clam and oyster shells, but sometimes of the scallop. On Iroquois sites in the interior are often scattered those of the fresh-water clam. There are rare instances there of beds of these of an earlier date. Near the sea the dead were sometimes buried in shell heaps, and in a few cases dogs were carefully interred. For burial purposes the shells were neatly arranged. Careful observers now give a much lower antiquity to these shell heaps than was formerly claimed, and some are evidently of very recent date. As food our water mollusks have probably been long in use here. As ornaments their shells may have been sparingly used in New York four centuries ago. There is little proof of so long a use as this, but it may well be supposed that much has perished. In two or three instances a higher antiquity may be allowed, for wandering hunters may have brought some here. It is not a question of the presence of man in New York, but simply of his use of one common material.

After these pages were in type the writer examined a fine recent belt, 47 inches long and six broad, with 18 rows of beads, mostly white. It has three triple diagonal bands of black beads, and letters and figures in black at one end. If this was considered the bottom there would be 1800, and M C beneath. It probably should be reversed and would then be W C 1800. Captain William Claus had then been recently appointed deputy general superintendent of Indian affairs in Canada, and it seems a belt used by him. It resembles the Simcoe belt in material and construction, and has buckskin thongs. In the terminal fringes are a few blue and white beads, as large as marbles. This is a novel feature.

EXPLANATION OF PLATES

Page numbers refer to fuller descriptions in bulletin.

Plate 1

FIG.		PAGE
1	Shell of round clam or quahog	327
2	Section of posterior part of quahog shell	328
3	Section of central basal margin of quahog shell	328
4–6	Antique columellae from near Sag Harbor	328
7	Young shell of Fulgur carica	328
8	Shell of Busycon perversum	328
9	Shell of Buccinum undatum (full size)	329
10	"Eyestone" from fresh-water lobster	361

Plate 2

11	Perforated Unio rosaceus shell from Waterburg fort, knife or ornament	379
12	Pendant of spiral shell perforated at base for suspension, from camp near St Lawrence village	376
13	Perforated Unio complanatus shell from near Mohawk river, knife or ornament	379
14	Fine, large disk bead of Unio shell from near Baldwinsville	367
15	Pendant of spiral shell from near Baldwinsville	376
16	Pendant of spiral shell from Brewerton	376
17–18	Melantho shells from Erie county	331
19	Perforated specimen of Littorina virorata found at Onondaga fort of 1600	329, 332
20	Small perforated seashell from recent site, used as bead	332
21	Small discoid bead with large perforation from Union Springs	367
22	Small perforated seashell from recent site, used as bead	332
23–24	Unfinished pendants or disk beads from cache of chipped shells found in Lindley, Steuben co	377
25	Goniobasis shells from fort west of Cazenovia	331

FIG. PAGE
26 Small perforated seashells from recent site, used as beads 332
27 Discoid bead from Indian hill, Pompey 367
28 Fossil bivalve from Seneca county, with beak perforated for suspension 376
29 Polished cylindric bead from Geneva 372
30 Small perforated seashells from recent site, used as beads 332
31 Cylindric pendant from Van Arsdale farm, Fleming ... 364
32 Cylindric pendant with one perforation containing a copper ring 364

Plate 3

(All reduced

31*a* Bunch of white wampum for a religious council 347
32*a* Belt obtained from Indian woman, lines indicating part of an alliance belt 406
33 String of mourning wampum attached to silver ring .. 348
34 Three strings of purple beads terminating with white beads 348
35 Three small strings of purple united at one end announcing the death of a member of the grand council 346
36 Mourning wampum 348
37 String of wampum used as credentials 347
38 Purple and white discoid beads with a tooth and two other beads 365, 368
39–40 Strings of fine purple and white beads for council purpose or ornament 348
41 String of wampum, having the ends tied to form a circle, and announcing the death of a war chief 346
42 String of beads showing aboriginal boring 348

Plate 4

43 Cup made from seashell 336
44–50, 53–56 Mostly pendants figured in Schoonmaker's *History of Kingston.*

FIG. PAGE

Probably reduced and may have been the size of two similar articles in fig. 166 and 168 376
51–52 Small, plain rings from Ulster county 377
57 String containing a chief's name 349
58 String of purple beads terminating with white beads .. 348

Plate 5

59 Fish ornament from Pompey 364
60 Broken bird bead from Munnsville 362
61 Ornament from near East Bloomfield 363
62 Four crescents strung with beads 363
63 Ornament from Indian Castle, Pompey (actual size *see also* fig. 217) 363
64 Shell cross from Pompey 376
65 Purple bird bead from Cayuga castle 362
66 Bird ornament from Oneida valley 362
67 Cylindric pendant from McClure farm, Hopewell 364
68 Ornament from near East Bloomfield 363
69 Two views of crescent from East Cayuga 363
70 Large and fine purple bird bead from Sibley farm, Foxridge lateral view, shows the perforation 362
71 Cylindric pendant from McClure farm, Hopewell 364
72 Shell ornament representing flying bird from recent site at Oneida valley 362
73 Flattened or disk bird of white shell from Cayuga county 361
74 Rude turtle ornament from Pompey 364
75 Flattened or disk bird, with small head and unusually long neck 362
76 Flattened or disk bird from Fleming 361
77 Flattened or disk bird of dark purple from McClure site, Hopewell 362
78 Thin cordate pendant, having small perforation at each end 364
78*a*–79 Shell pins from recent site west of Honeoye Falls 377

FIG. PAGE

80 Use doubtful. Grooved article with most of the 10 countersunk indentations ending in a small perforation; from Cayuga 376
81 Small, polished bead of small columella from fort site west of Cazenovia 372
82 Bead constricted in center from Indian hill, Pompey .. 372
83 Crescent of more than usual size from Indian Castle, Pompey 363
84 Long flat bead of moderate thickness found on the Dann farm near Honeoye Falls 369
85 Elliptic bead from Munnsville 372
86 Small, flat pendant from Indian hill, Pompey 365
87 Shell article, probably a knife 379
88 Cordate flat pendant with a vertical perforation from Hopewell 364

Plate 6

89 Shell owl found near Canajoharie 362
90 Rare form of bird of bivalve shell from Venice N. Y. 362
91 Fine shell owl, ornamented with lines and dots 362
92 Shell bird, much weathered, perhaps merely a pendant. 362
93 Shell bird of unusual length and width, much weathered 362
94 Fine expanded example of shell bird from Canajoharie. 362
95 Turtle ornament of oyster shell 364
96 Turtle ornament from Pompey 364
97 Broken shell bird ornamented with lines and dots 362
98–99 Turtle ornaments from McClure farm, Hopewell 363
100 Beaver ornament from East Bloomfield 364
101 Fish ornament from Cayuga 364
102 Rude turtle ornament from a Cayuga grave, possibly broken 364
103 Turtle ornaments lacking head from McClure farm, Hopewell 363

FIG. PAGE

104 Fish ornament broken at the forward hole from Indian Castle, Pompey (*see also* fig. 212)..... 364

105 Fine fish ornament of hard and highly polished shell from Pompey..... 364

Plate 7

106 Massive bead from Indian hill, Pompey..... 369

107 Somewhat long bead from Pompey..... 369

108 Bead of Fulgur carica shell about 350 years old from Seneca river..... 370

109 Large bead from Scipioville..... 369

110 Bead of Fulgur carica shell about 350 years old from Seneca river..... 370

111 Shell bead from grave at Palatine Bridge.....337, 370

112 Massive bead from a recent grave at the East Cayuga site..... 369

113 Massive bead from Pompey..... 369

114 Olive shell pierced for use, from a stone grave near Beaver lake, west of Baldwinsville..... 376

114*a* Somewhat cordate massive bead from Venice N. Y... 369

115 Long and well polished slender bead from East Cayuga..... 370

116–17 Two polished cylindric beads ornamented with incircling grooves from Pompey..... 371

118 Bead of Fulgur carica shell about 300 years old from Onondaga fort west of Cazenovia..... 370

119 Busycon perversum columella 4.5 inches long unperforated..... 371

120 Bead 6.15 inches long from St Joseph's mission near Union Springs..... 371

121 Beads 6.8 inches long from east side of Cayuga lake.....332, 371

Plate 8

122 Plain gorget from Mapleton, or East Cayuga..... 380

123 Gorget having pyriform outline and two perforations from Venice N. Y..... 381

FIG.		PAGE
124	Disk pendant from Honeoye Falls	376
125	Unperforated disk of pearl from mission fort site at Onondaga lake	368
126	Mask about 200 years old	377
127	Polished slender bead from Geneva	370
128	Rather large gorget of a generally elliptic form and having one long edge nearly straight, from Venice N. Y.	381
129	Large angular bead from Pompey	369
130	Massive bead, triangular in section from Dann farm near Honeoye Falls	369
131	Slender bead 5 inches long from Pompey	370
132	Slender bead 4 inches long from Pompey	370
133–34	Large polished beads from St Joseph's mission near Union Springs	371
135	Fine and well worked columella bead, found 1½ miles north of Union Springs	371
136	Somewhat spheric massive bead from Dann farm near Honeoye Falls	369
137	Massive bead from Pompey	369
	Plate 9	
138	Remarkable form of runtee, symmetric in outline but much like early banner stones, from the Onondaga fort of 1696	375
139	Mask found at Onondaga fort of 1696	377
140	Neatly cut shell designed for some unfinished ornament, from Brewerton	377
141	Massive bead from Venice N. Y.	369
142	May be an unfinished pendant, now unperforated, from Honeoye Falls	377
143	Runtee ornamented with a cross of small circles from the Dann farm near Honeoye Falls	375
144	Fine signet ring from Cayuga	377
144*a*	Doubly perforated and grooved ornament, probably a pendant, from Honeoye Falls	376

FIG. PAGE

145 Shell article of doubtful use, perhaps suspended ornament 378
146 Pretty runtee with cross, circles and dots from Cayuga county 374
147 Small, plain runtee from Munnsville..... 374
148 Turtle shell pendant from Union Springs..... 376
148*a* Runtee having a design of large and small circles, from Pompey..... 375
149 Turtle shell pendant from Union Springs..... 376
149*a* Pendant from the Onondaga fort of 1696, as given by Schoolcraft 376
150 Massive bead, triangular in section, from Baldwinsville 369
151 Somewhat cordate massive bead from Venice N. Y.. 369
152 Almost cylindric massive bead from Pompey..... 369
153 Pendant with one perforation instead of two from south of Genoa village..... 376
154 Young turtle shell, neatly perforated, from the early Mohawk village at Ephratah..... 377

Plate 10

155 Engraved shell gorget from Pompey (*see also* fig. 209). 380
156 Common form of runtee from Pompey..... 375
157 Common form of runtee having more points than usual, from Pompey..... 375
158–59 Common forms of runtees from Pompey..... 375
160 One of runtees in the state collection found together in Ontario county, the deer in the center being a rare feature..... 375
161 Runtee having concentric circles and two rows of dots from the McClure farm, Hopewell..... 375

Plate 11

162 Gorget 3.3 inches across from Dann farm near Honeoye Falls..... 381
163 Gorget of oval form from Pompey hill..... 381

FIG. PAGE

164 Gorget having two large holes from Dann farm near Honeoye Falls..... 381

164*a* Gorget 2.15 inches long, irregular though nearly circular, from Dann farm, near Honeoye Falls.... 381

165 Fine gorget half an inch deep and having one hole from Cayuga..... 381

166 Pendant from Honeoye Falls..... 376

167 Unperforated gorget from near Baldwinsville (*see also* fig. 210)..... 381

168 Pendant from Honeoye Falls..... 376

Plate 12

169 Belt 28 rows deep, having five open white diamonds on a dark ground from near the Georgian bay Canada 426

170 Belt 27 rows deep, having nine open white squares of white beads arranged diagonally from near the Georgian bay Canada..... 426

Plate 13

171 Belt given by the Esopus chiefs at a treaty in 1664, now in county clerk's office, Kingston N. Y..... 394

172 Mohawk belt 26 inches long with an extreme width of 11 rows..... 428

173 "Penn" belt..... 394

Plate 14

The belts on this plate were photographed by W. M. Beauchamp at a council at *Ohswelcen*, Canada, in 1899:

174 Belt six rows deep having 11 broad vertical bands of black and 10 of white..... 426

175 Belt 12 rows deep mostly white and three double diagonal black bands..... 426

176 Belt seven rows deep with 10 black diagonal bands and the same of white..... 426

177 Belt eight rows deep with five triple diagonal bands, two of one black and one of three black beads..... 426

FIG. PAGE

178 Belt of seven rows of white glass beads, perfectly plain 426, 447

179 Belt of nine rows, crossed by three double diagonal rows of single black beads on a white ground..... 426

Plate 15

180 Probably an alliance belt between nine towns or nations with a line and diamonds of dark wampum on a white ground..... 423

181–82 Bunches of strings arranged for council use..... 349

183 Called a Black Hawk belt, indicates a covenant..... 424

184 French mission belt, probably recent..... 423

185 Covenant belt, or a proposal for an alliance, probably recent 423

Plate 16

186 Belt signifying two nations, and a strong and enduring alliance 424

187 Belt having five double diamonds standing for the Five Nations 424

188 Belt called by owner "Six Nations' peace belt"..... 424

189 Belt having partly open diamonds on a white ground, 10 rows deep called by owner "Six Nations' peace belt" 424

190 Probably a covenant belt..... 424

191 Defective belt having but two white squares and two white hexagons inclosing similar figures, probably recent 424

192 Council belt 424

Plate 17

(All reduced

193–94 Strings of long beads from Pompey (much reduced).. 369

195 Miscellaneous lot of small beads from Pompey sites, some much weathered..... 349

196 Massive bead from Pompey (much reduced)..... 369

FIG.		PAGE
197	String of about 80 early discoid beads from canal lock 1½ miles north of Cayuga	367
198	Miscellaneous and massive beads from Pompey (much reduced)	369
199	Runtee from Pompey	374
199*a*	Runtee from Pompey showing circles and dots	374
199*b*	Runtee from Pompey showing cross and dots	374
200	Eight crescents from Indian castle, Pompey (much reduced)	363
201	Runtee broken through one of the perforations, showing six pointed star, from Pompey	374
202	Broken runtee showing dots and circles, from Pompey.	374
203	Runtee showing hardly a trace of the design, from Pompey	374
204	Globular bead, from Pompey	369
205	Runtee having star or flower divided in the usual way, from Pompey	374
206	Discoid beads from Pompey (reduced)	367
207	String of long beads from Pompey (much reduced)	369
208	Largest shell gorget yet found in New York from Pompey	380
209	Engraved shell gorget from Pompey (*see also* fig. 155)	380
210	Unperforated gorget from near Baldwinsville (*see also* fig. 167)	381
211	One of the larger runtees showing rings and a star, from Pompey	374
212	Fish ornament from Indian Castle, Pompey (*see also* fig. 104)	364
213	Short cylindric bead from Pompey	369
214	Massive and discoid beads from Pompey (much reduced)	369
215	Flattened or disk bird from Indian hill, Pompey	361
216	Ornament resembling turtle from Indian Castle, Pompey (much reduced)	363

FIG. PAGE

217 Ornament from Indian Castle, Pompey (*see also* fig. 63) 363
218 Bird ornament from Pompey 362
219 String of long beads with ornament attached, from Pompey 370
220 Thin ornament of Unio shell from Pompey 368
221 Discoid beads from Pompey 367

Plate 18

Strings of wampum used at mourning council

222 Used for first speech 453
223 Contain some white beads and used for second speech . 453
224 Purple wampum for third speech 453
225 Have a few white beads, for fourth speech 453
226 Have scattered white beads, for fifth speech 453
227 Have purple beads, relating to the dead chief, for sixth speech 453
228 Have some white beads at the end of the strings as the seventh and last speech concludes with a call for the new chief 454

Plate 19

229 Emblematic belt 427
230 Condolence belt belonging to Cornplanter 406
231 Belt procured for state museum by Mrs H. M. Converse, formerly held by Gen. E. S. Parker 404
232 Modern belt; this and fig. 244 are the widest belts known 412, 419
233 String of small and irregular Canadian disk beads 365

Plate 20

234 Belt of 10 rows, mostly white, with three diagonal rows of three open, black squares 427
235 Long and narrow purple belt of seven rows, in New York 427

FIG. PAGE

236 Belt of seven rows with a zigzag pattern at one end and a series of small dark crosses.....415, 422
237 Belt of doubtful meaning on buckskin thongs and strung with fine white thread.....413, 422
238 Onondaga belt, made on twine thongs.....414, 423
239 Belt of seven rows with four pairs of black diamonds linked together in pairs on a white ground....415, 422

Plate 21

240 Belt of doubtful meaning; sloping lines are temporary alliances 414, 422
241 Belt prepared for Mr Morgan at Tonawanda in 1850 386
242 Labeled "Hospitality or welcome belt—Canadian Mohawk". White belt of six rows with three diagonal bars of black..... 428
243 Mutilated Five Nations belt..... 406
244 Widest belt known.....412, 420
245 Fragment of purple Cornplanter belt without figures 407
246 Belt nine rows deep with six human figures in black, joined by a dark line, called women's nominating belt 428
247 "Ransom belt", purple belt of six rows with white diagonal lines and open hexagons..... 428

Plate 22

248 Covenant belt with the 13 original United States..413, 422
249 Once a belt of 13 rows, now quite defective.....415, 423
250 Probably once a belt of eight rows, missing beads consumed in messages, offerings and ceremonies..415, 423
251 Belt of seven rows with open white hexagons on a purple ground 414, 419
252 Reputed original record of the formation of the league 411, 420
253 Runtee from a recent Cayuga grave..... 375
253*a* Runtee from the Onondaga site of 1696..... 375

Plate 23

FIG.		PAGE
254	Ordinary belt of seven rows from near Georgian bay, Canada	426
255	Early belt of 1711 about 3 feet long and 20 rows wide	388, 426
256–57	Two very large discoid beads found at Cayuga	367
258	Elliptic bead from Indian hill, Pompey	372
259	Somewhat pointed elliptic bead from Indian hill, Pompey	372
260	Truncate bead from Oneida Castle	372
261	Wampum bead from fort west of Cazenovia, about 300 years old	372
262	Bead from Scipioville formed from columella of Sycotypus canaliculatus	371
263	Bird ornament from Indian hill, Pompey	363
264	Pendant somewhat cordate in form from Venice N. Y.	377
265	Fine angular bead from Venice N. Y.	372
266	Cayuga bead with an inside rimming	368
267	Flat, angular bead from McClure site, Hopewell	372

Plate 24

268	Belt having white figures on a dark ground, in the national museum at Washington	408
269	Lettered belt in the national museum at Washington	391, 409
270	Small belt, history unknown in the national museum at Washington	409

Plate 25

271	Photograph by Mr Hildburgh of belt in the Trocadero palace in Paris	390
272	Belt of eight rows, about 224 beads long, with purple *swastikas* on a white ground	425

FIG. PAGE

273 Belt called a scapular, an exceptional form of belt; at widest part having 13 rows and is about 260 beads long 425

274 Belt 17 rows wide and about 225 beads long, showing Indians in white on purple ground..... 425

Plate 26

274*a* "Sir William Johnson dish belt", nine rows wide, having four hexagons..... 428

275 Defective white belt of 15 rows with one small open diamond and four large..... 429

276 "Black Hawk belt" having the frequent double diamonds on a dark ground, and is 10 rows deep.. 429

277 Oneida belt of unique character, and 21 rows wide.. 429

278 Penobscot marriage belt of unusual character, of dark beads edged with white and has velvet strings..... 430

279 Penobscot belt said to have belonged to "Molly Molasses" 429

280 Penobscot marriage belt of dark beads edged with white and has elliptic beads on one border..... 430

Plate 27

281 Iroquois chiefs reading belts in Brantford, Canada, 1871 417

Plate 28

282 Reproduction of La Hontan's picture of De la Barre's council at La Famine in 1684, from 2d English edition, 1735.....388, 440

Plate 1

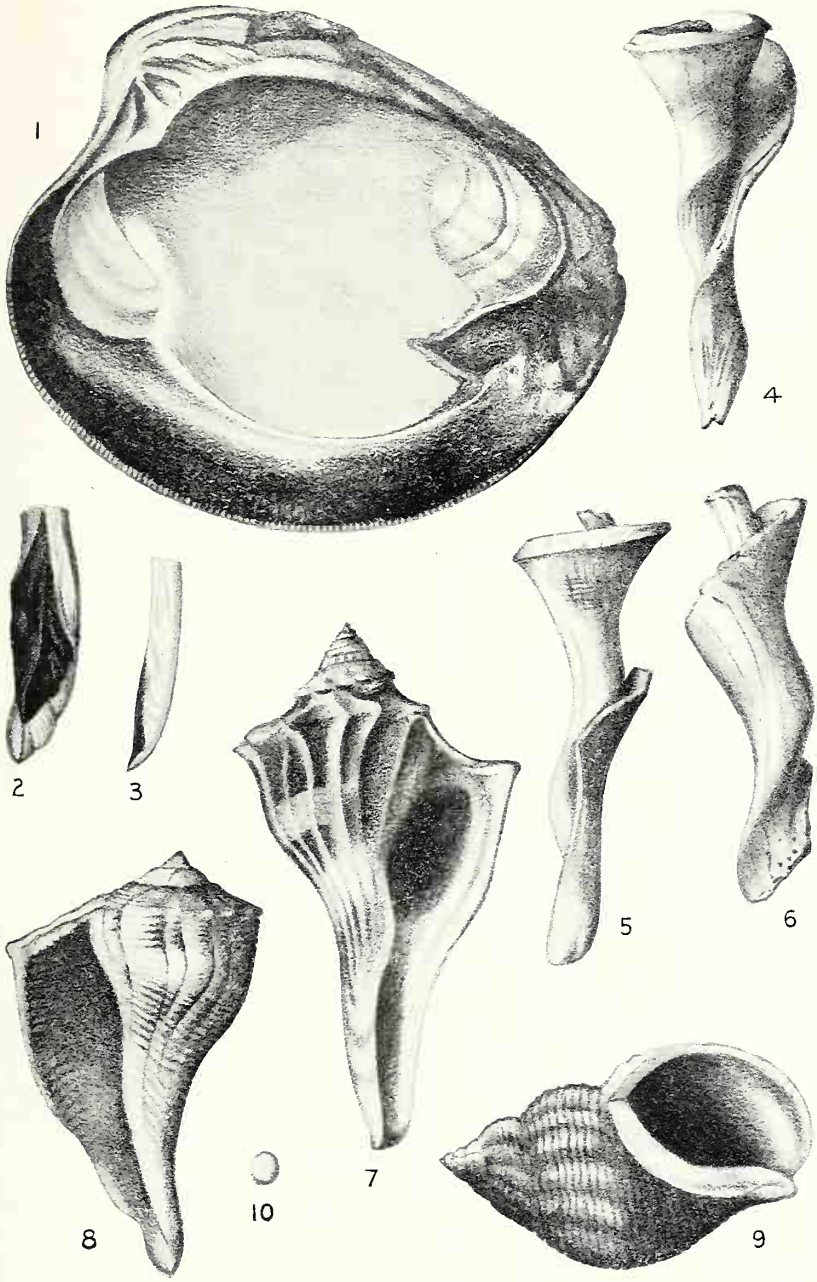


Plate 2

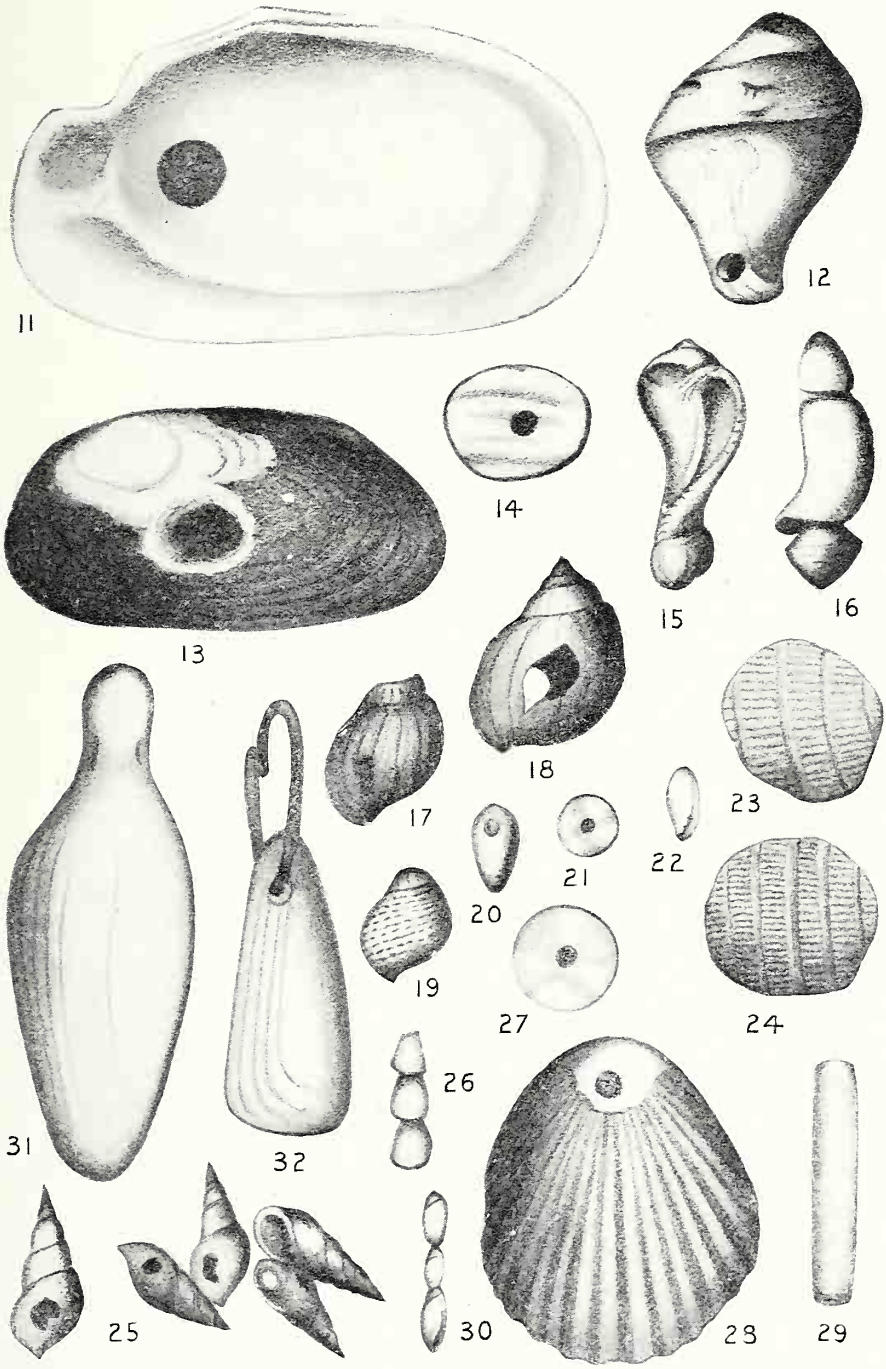


Plate 3

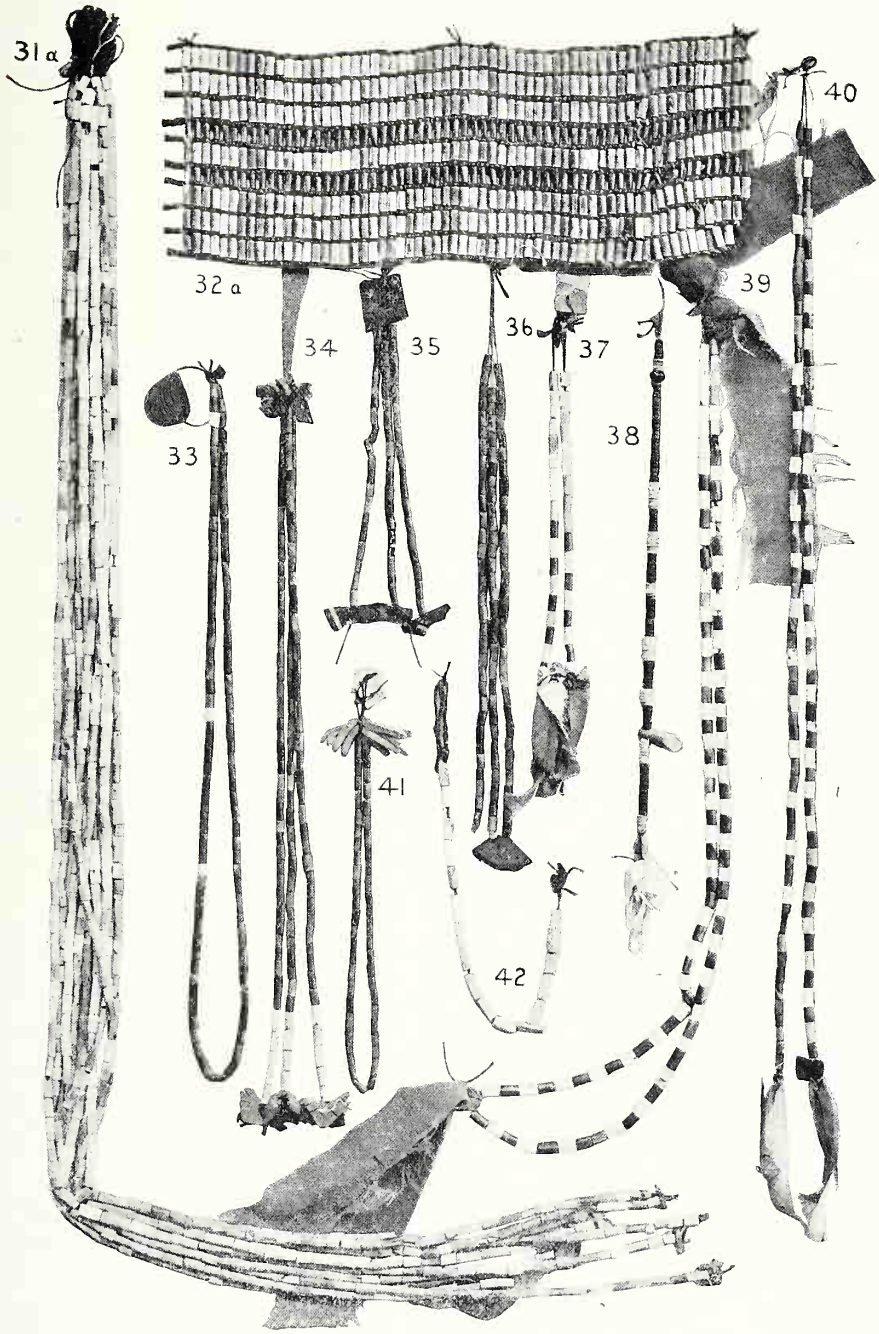


Plate 4

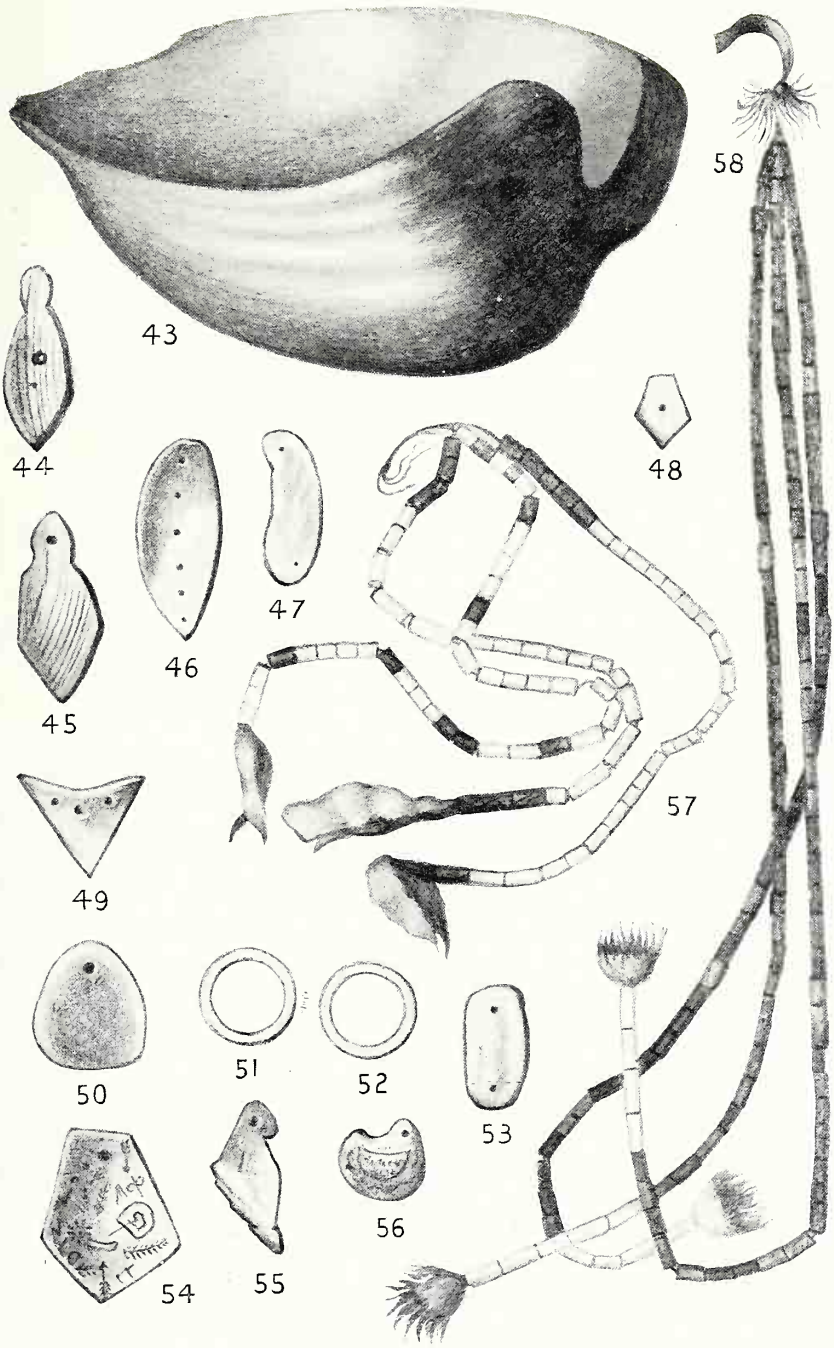


Plate 5

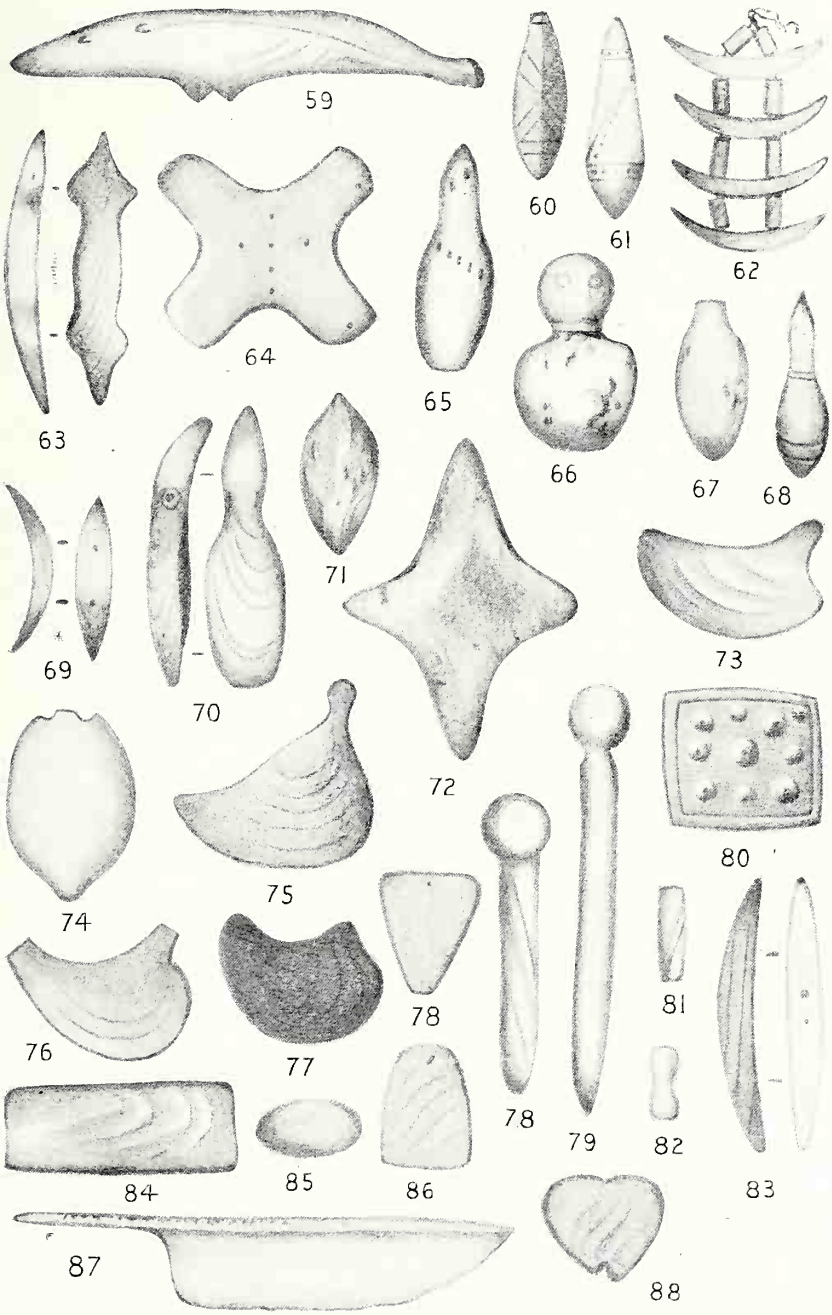

59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
78
79
80
81
82
83
84
85
86
87
88

Plate 6

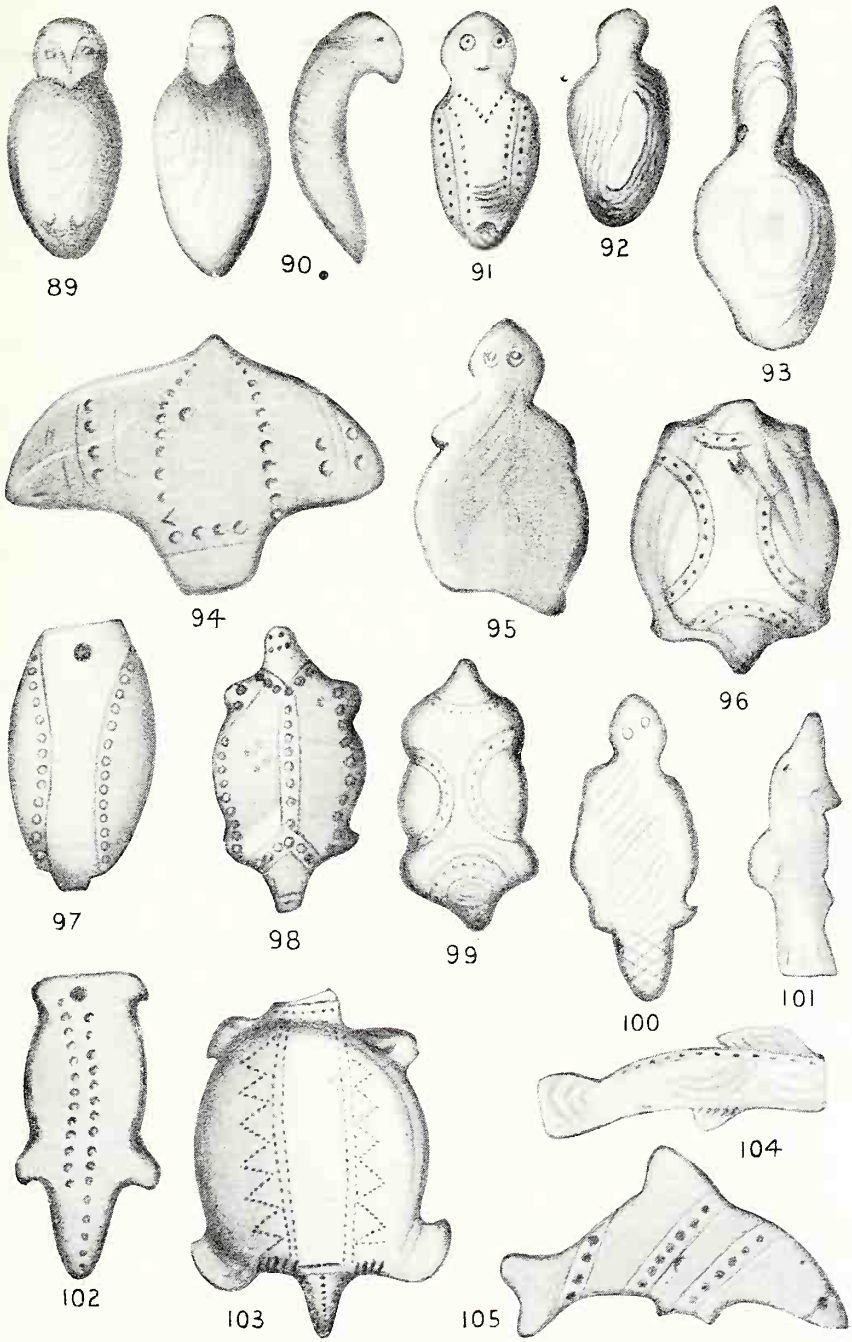


Plate 7

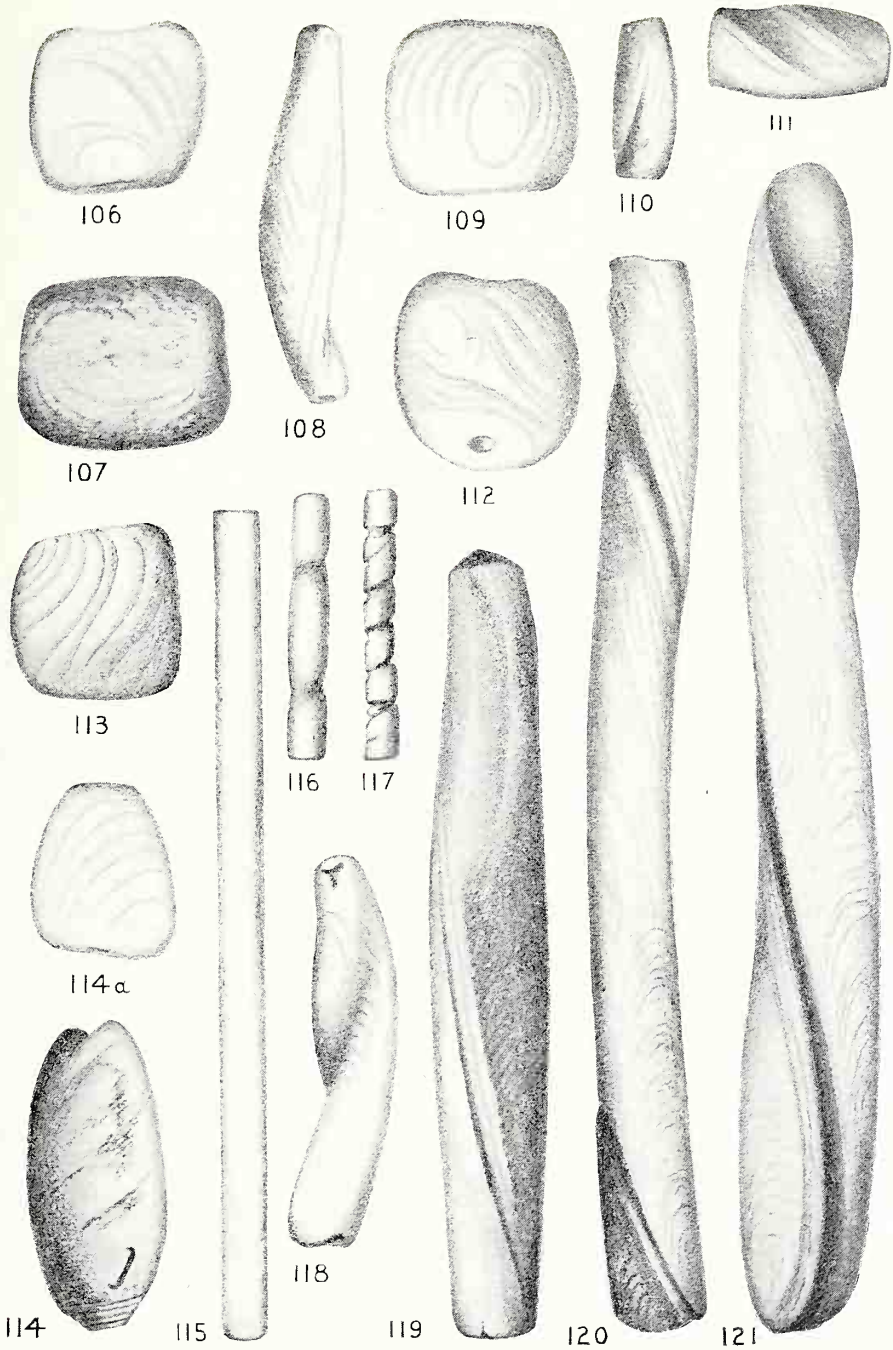

106
107
108
109
110
111
112
113
114
114a
115
116
117
118
119
120
121

Plate 8

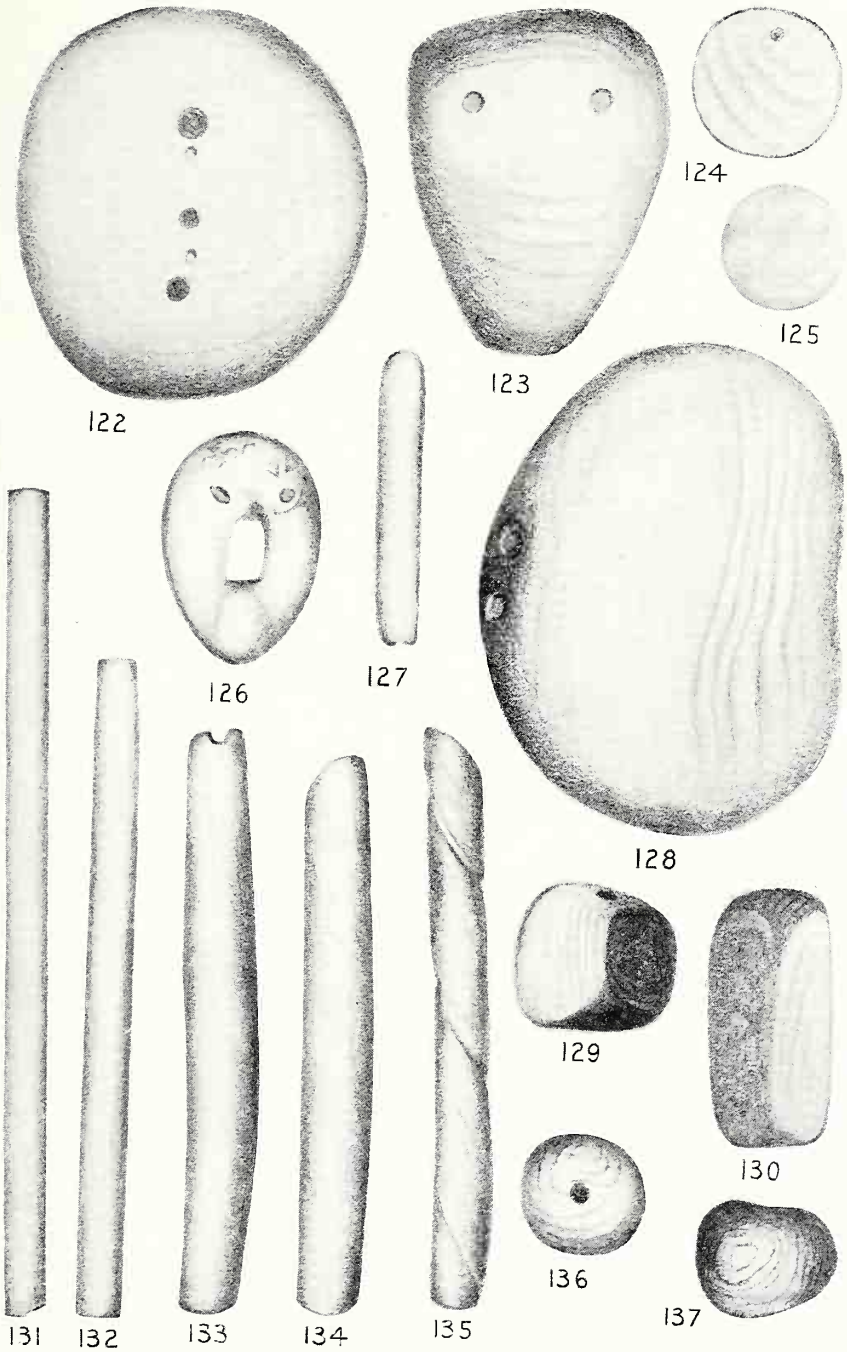


Plate 9

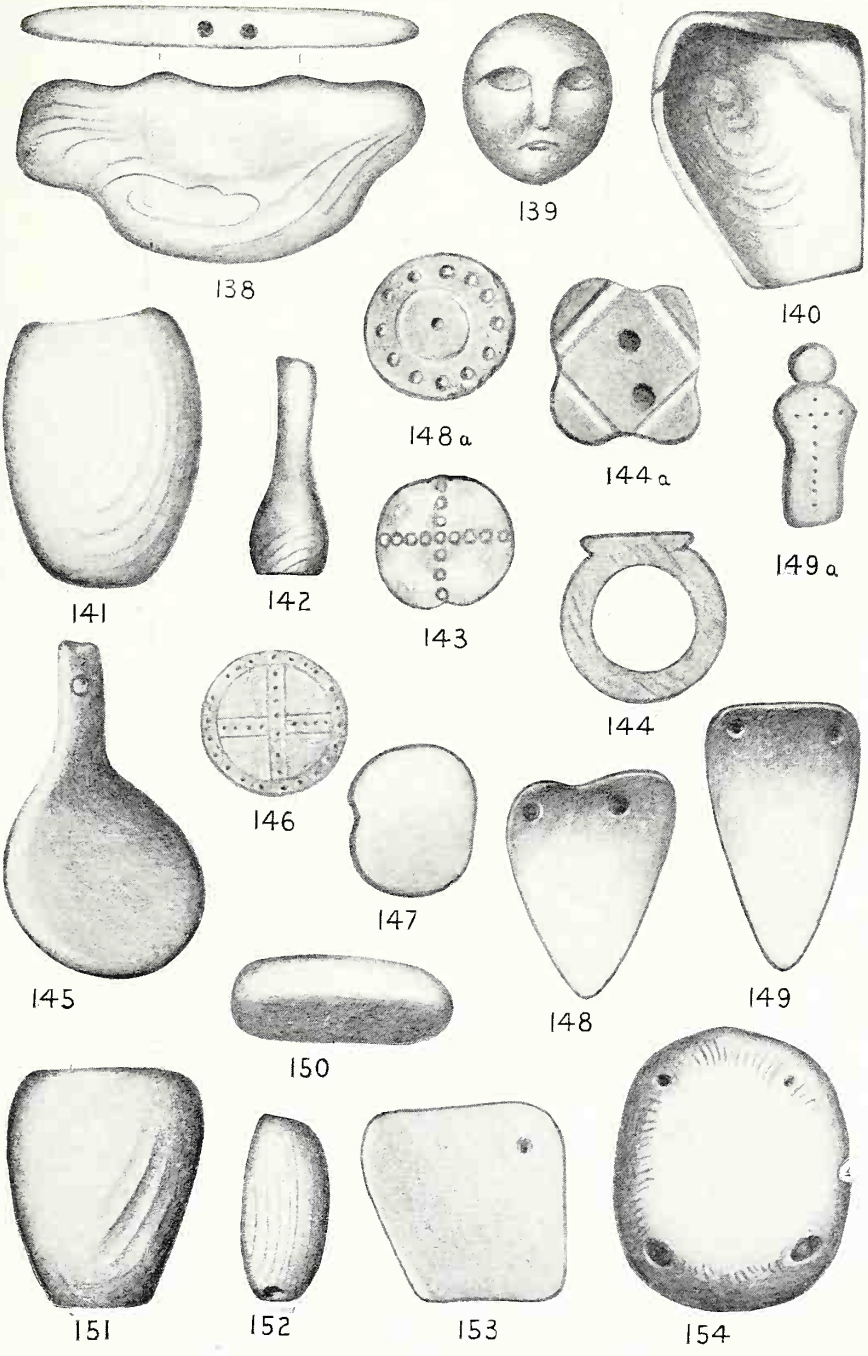
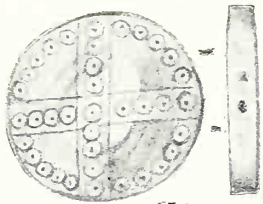
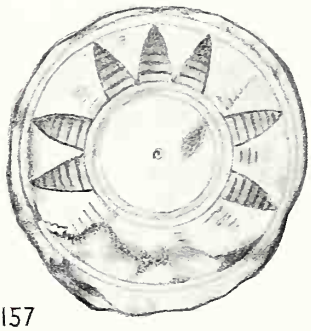

138
139
140
141
142
148 a
144 a
149 a
143
144
146
145
147
148
149
150
151
152
153
154

Plate 10

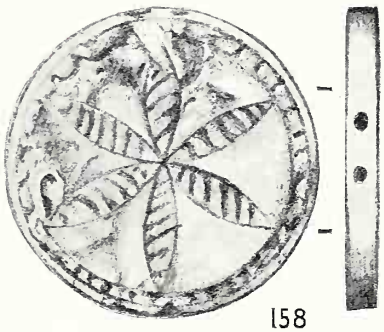
155



156

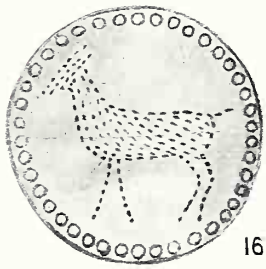


157

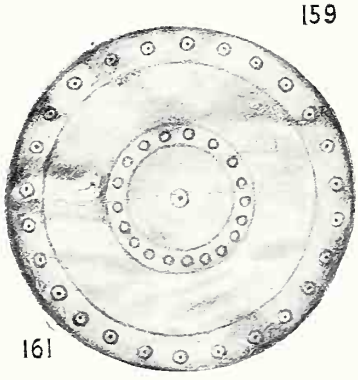


158

159

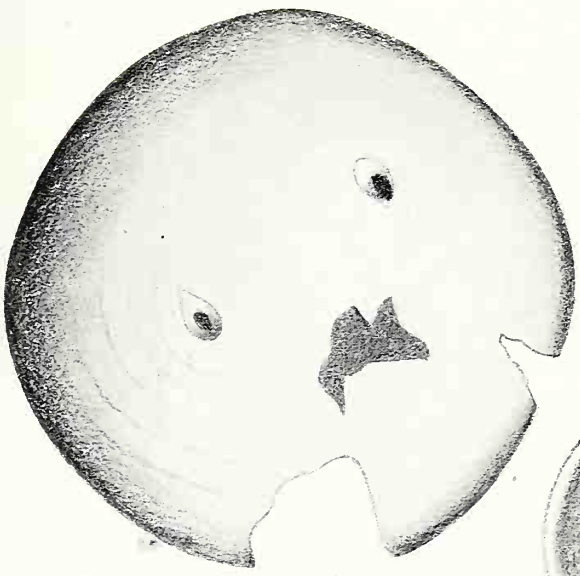


160

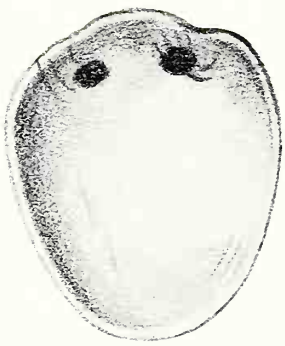


161

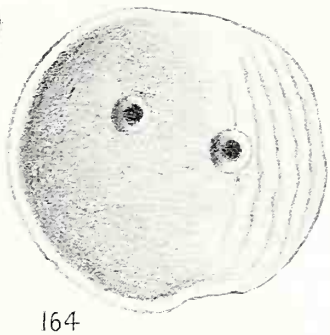
Plate 11



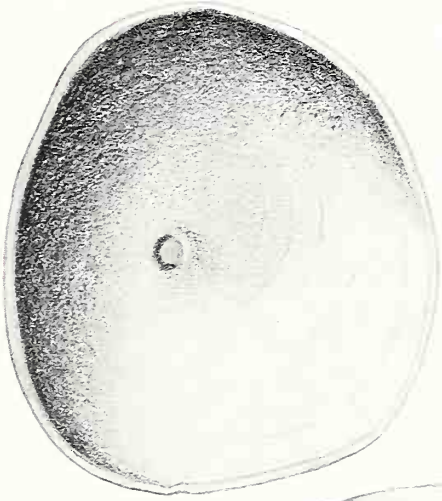
162



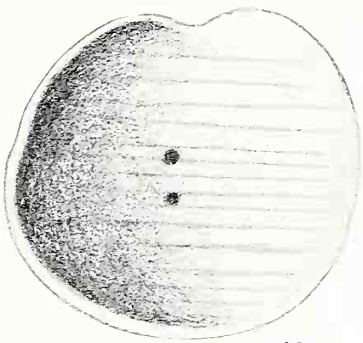
163



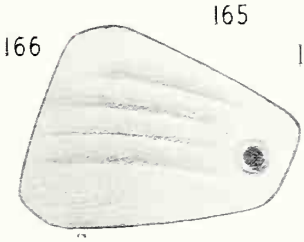
164



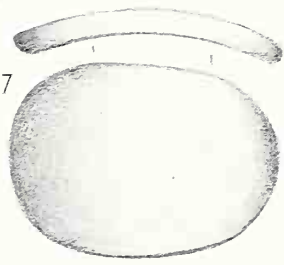
165



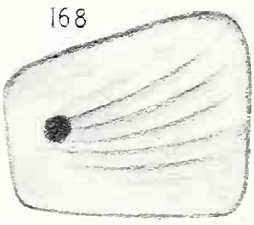
164 a



166

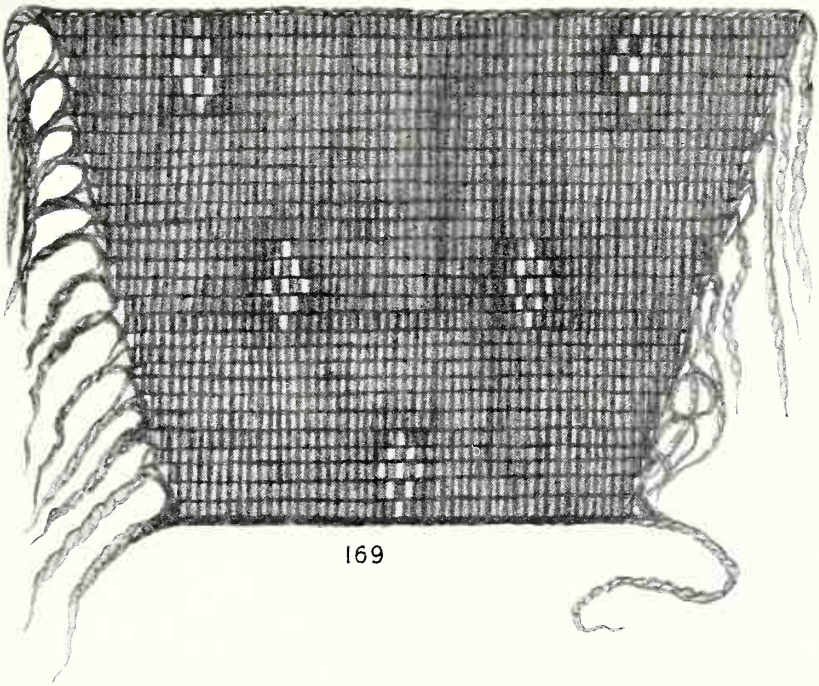


167

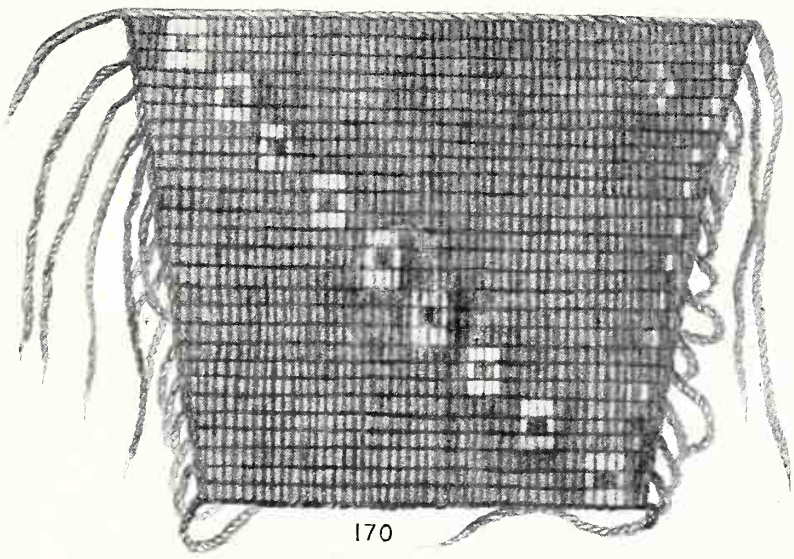


168

Plate 12



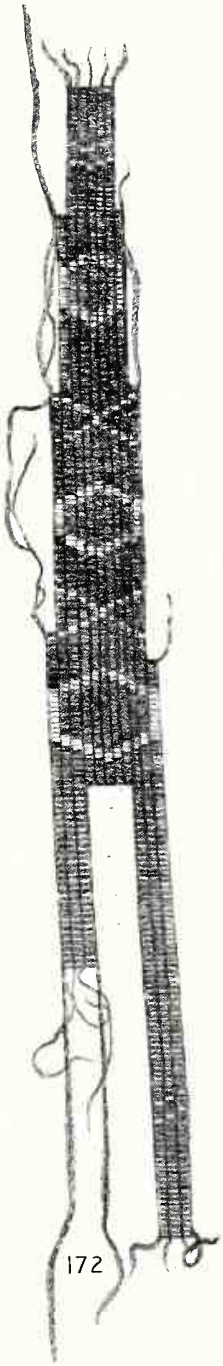
169



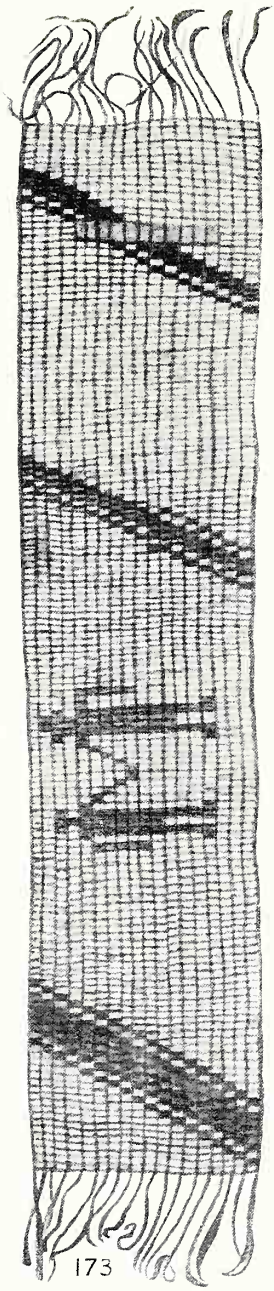
170

Plate 13

171



172



173

Plate 14

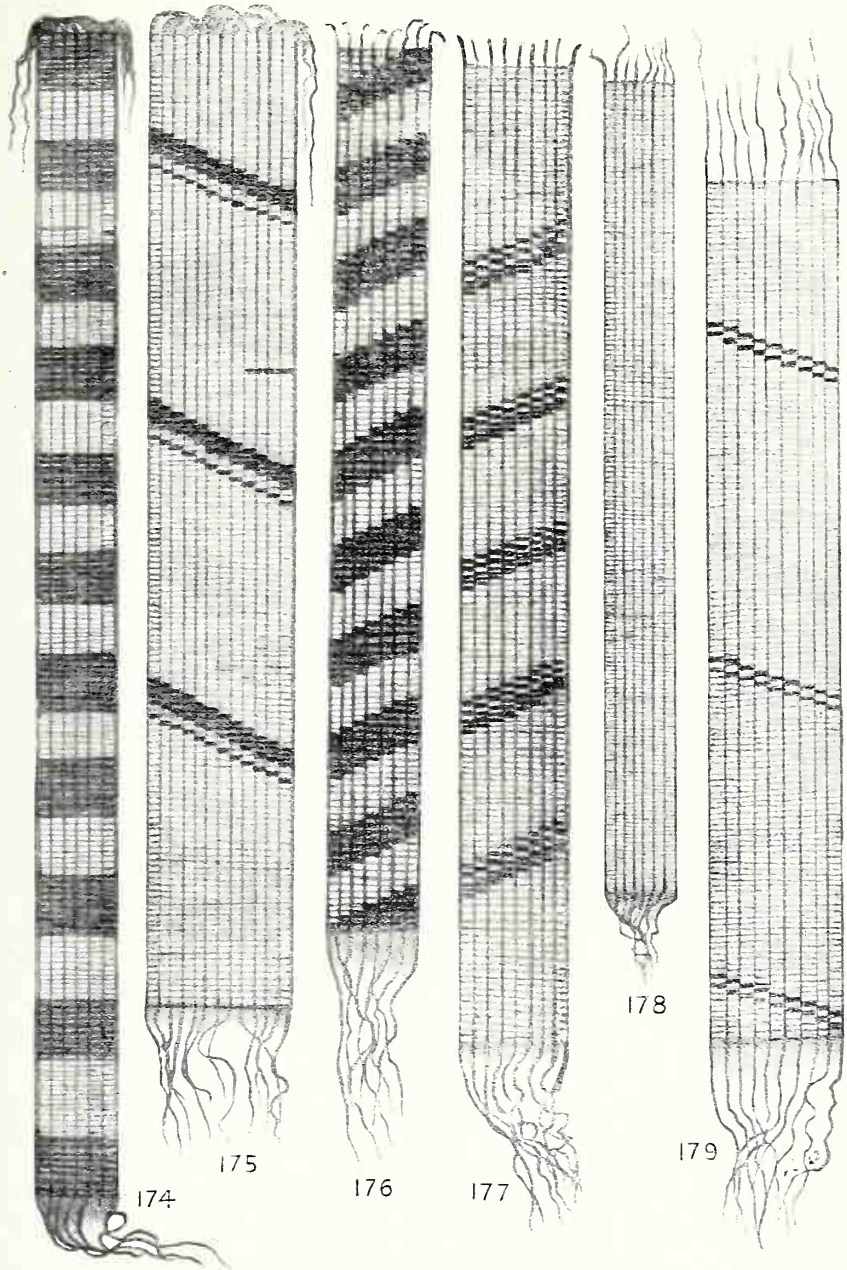


Plate 15

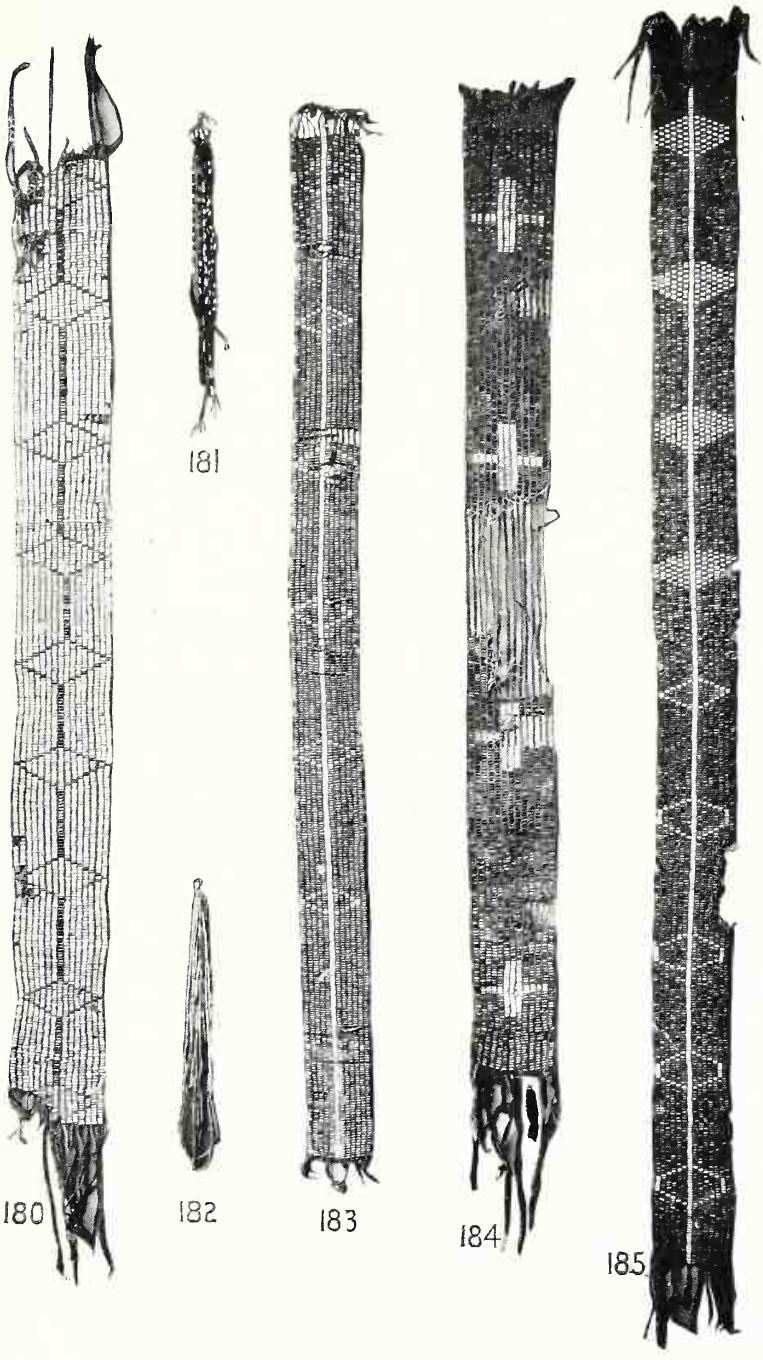


Plate 16

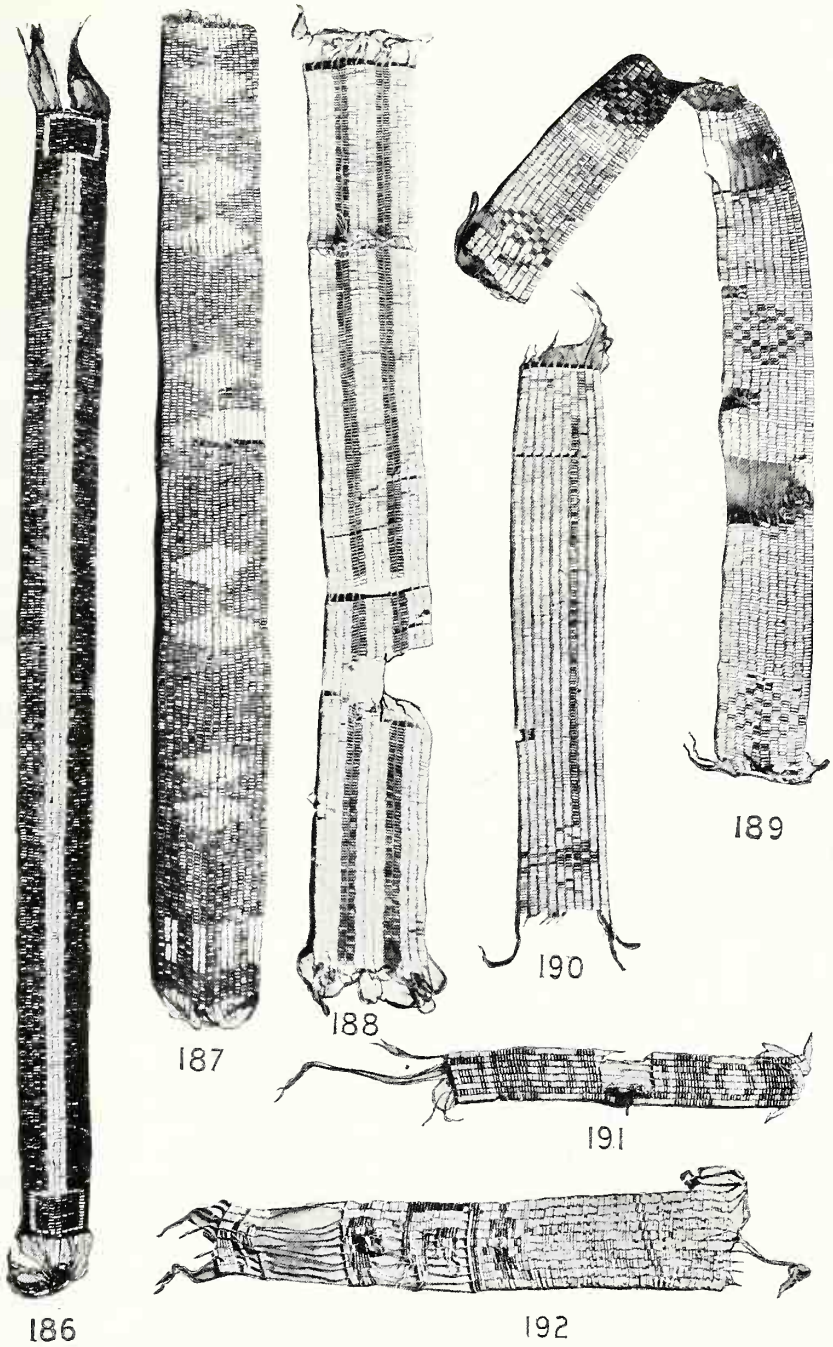


Plate 17

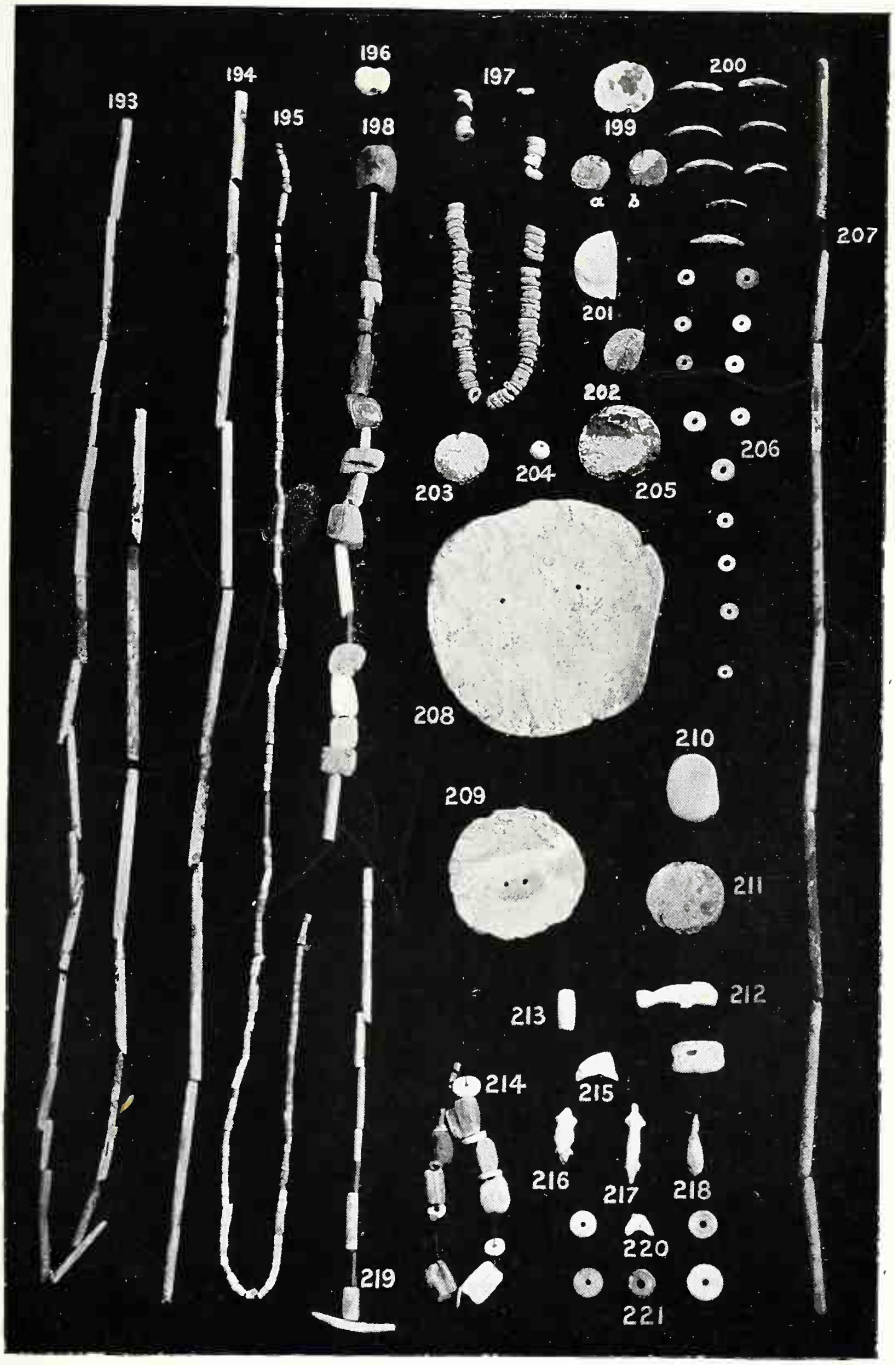

193
194
195
196
197
198
199
200
a
b
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221

Plate 18

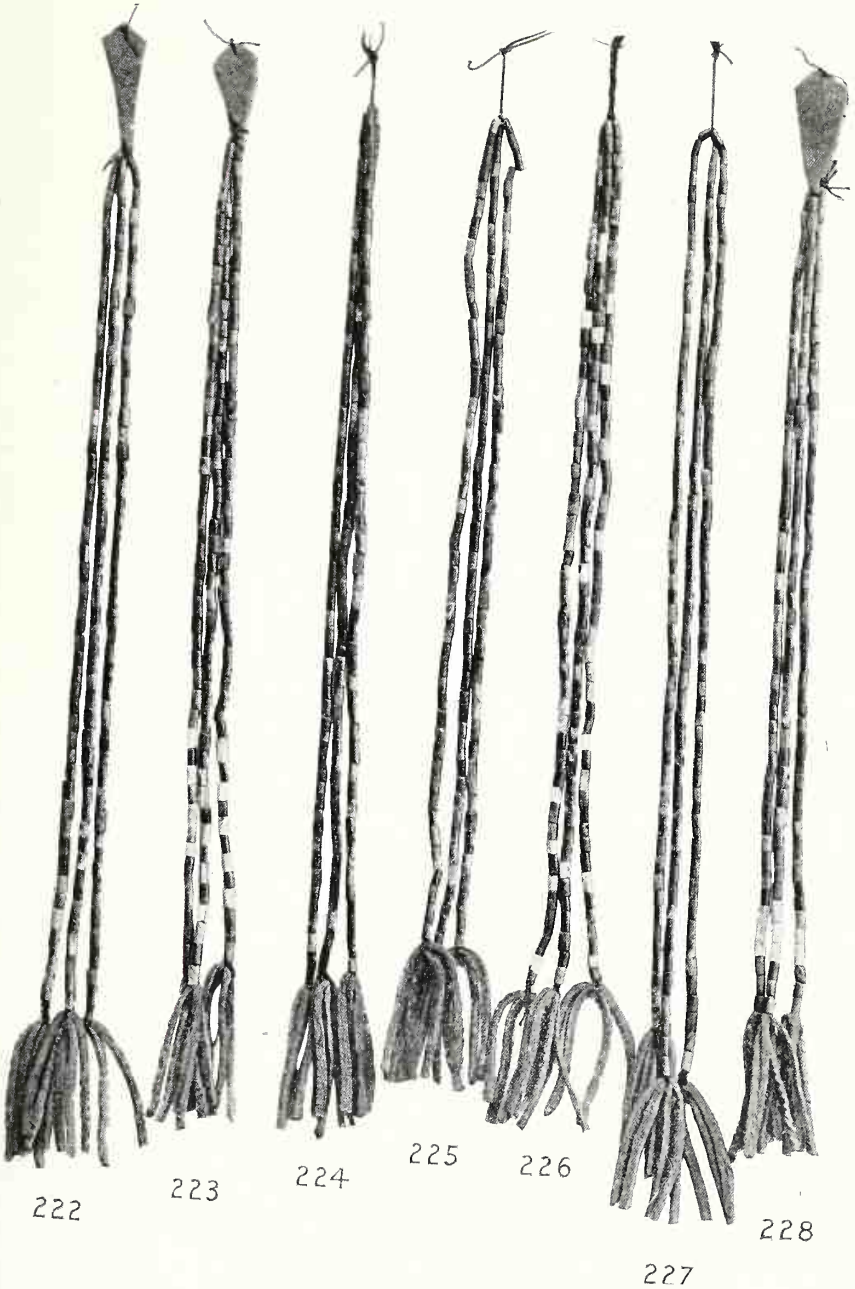


Plate 19

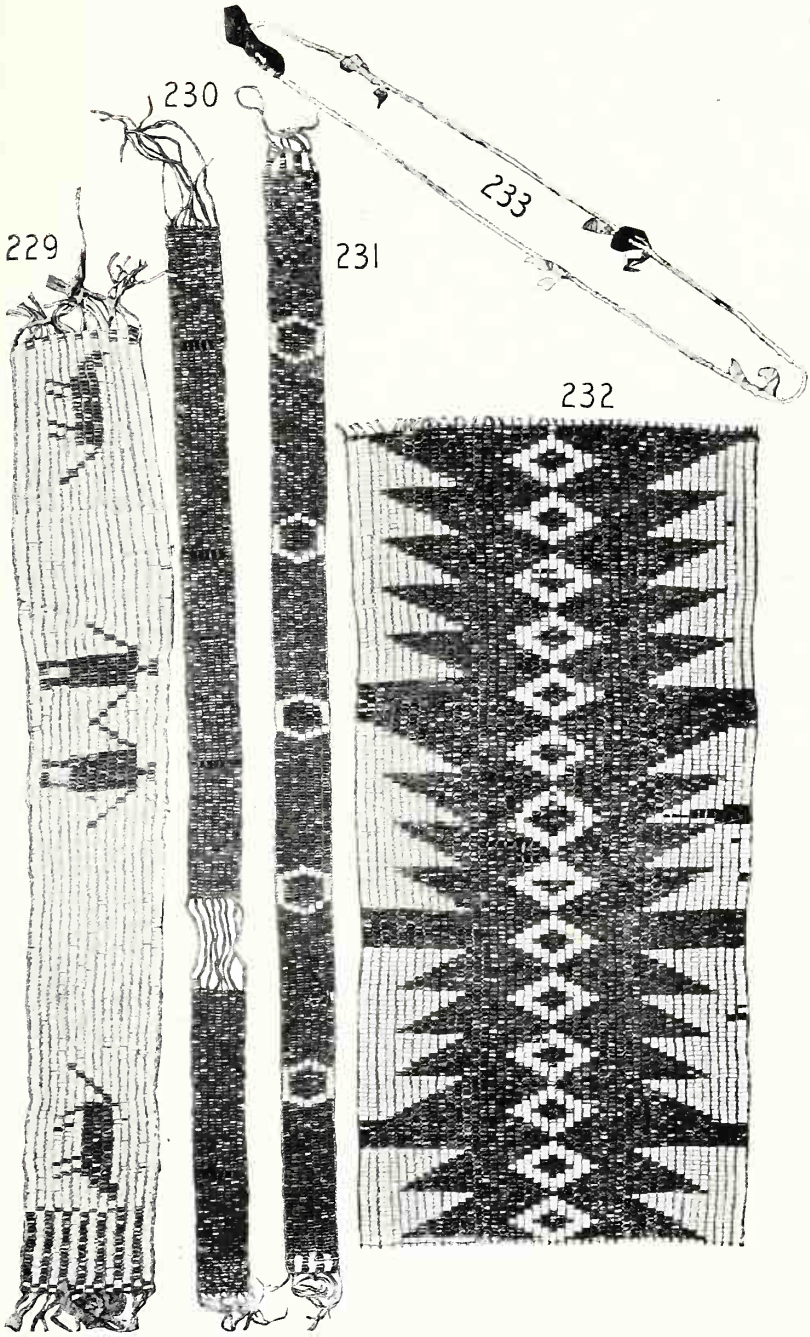


Plate 20

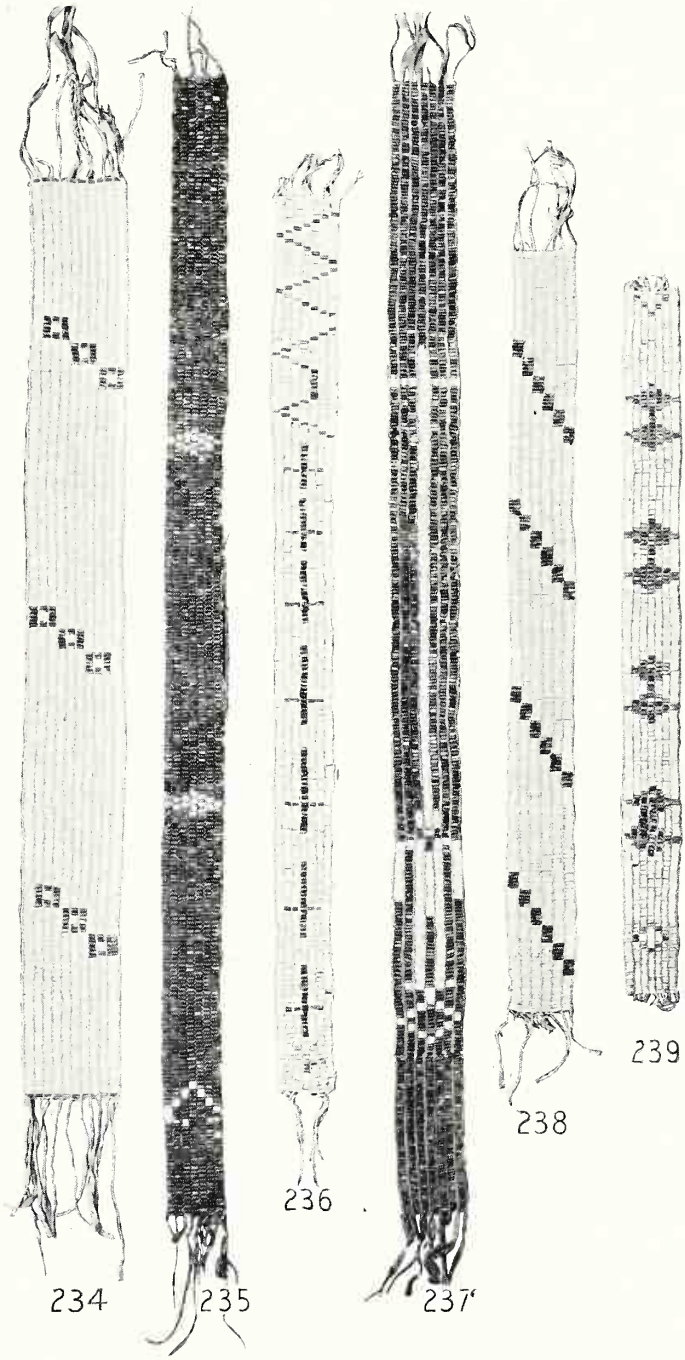


Plate 21

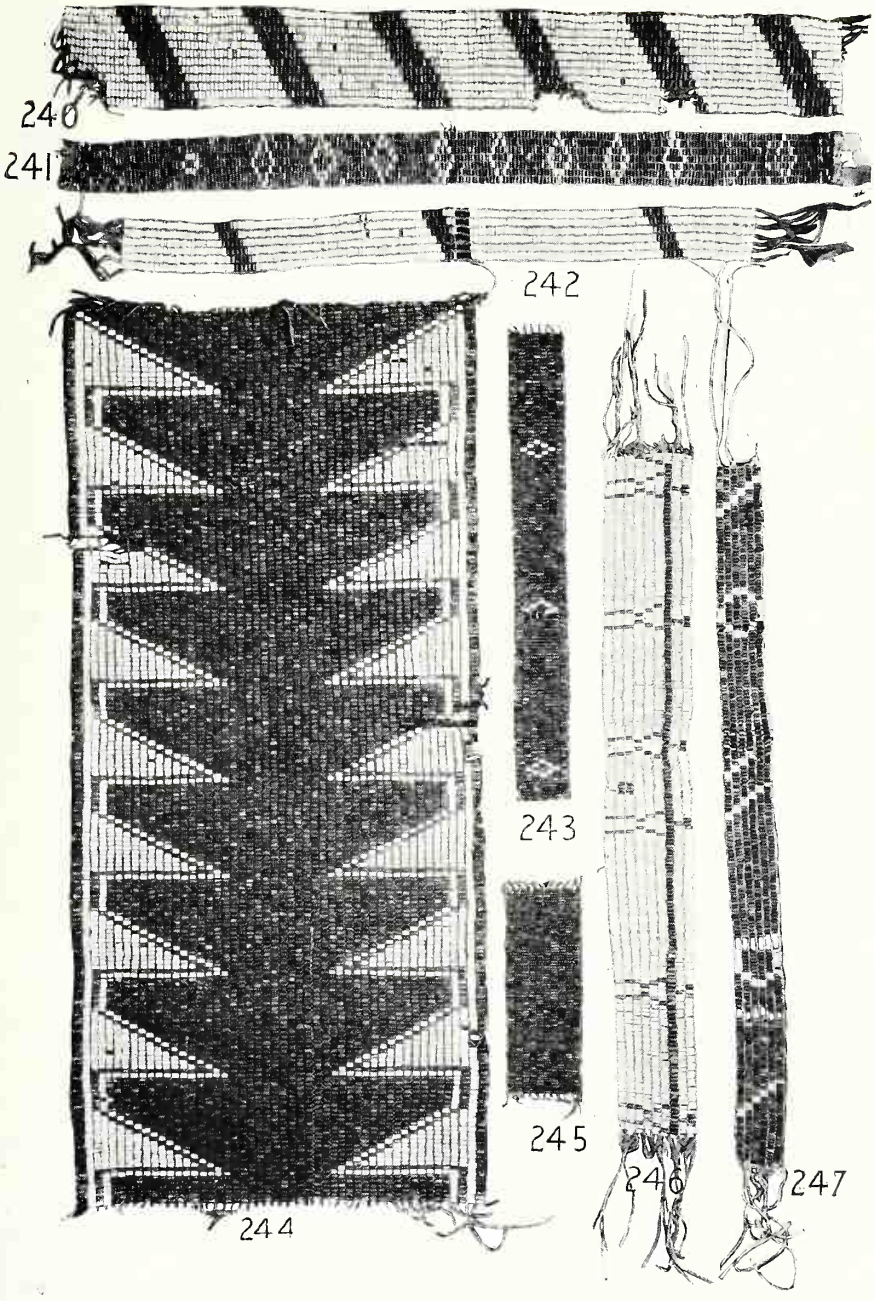


Plate 22

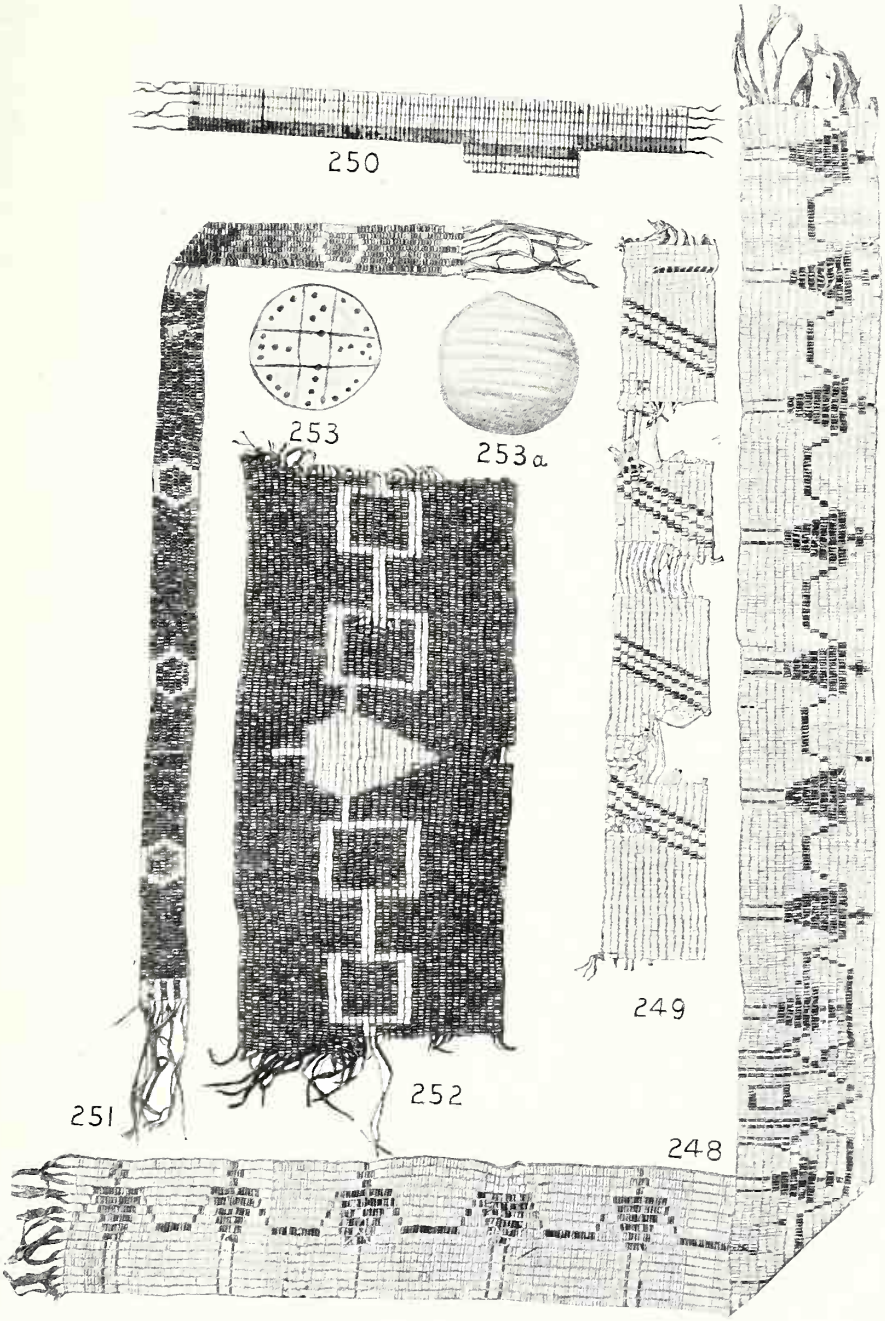


Plate 23

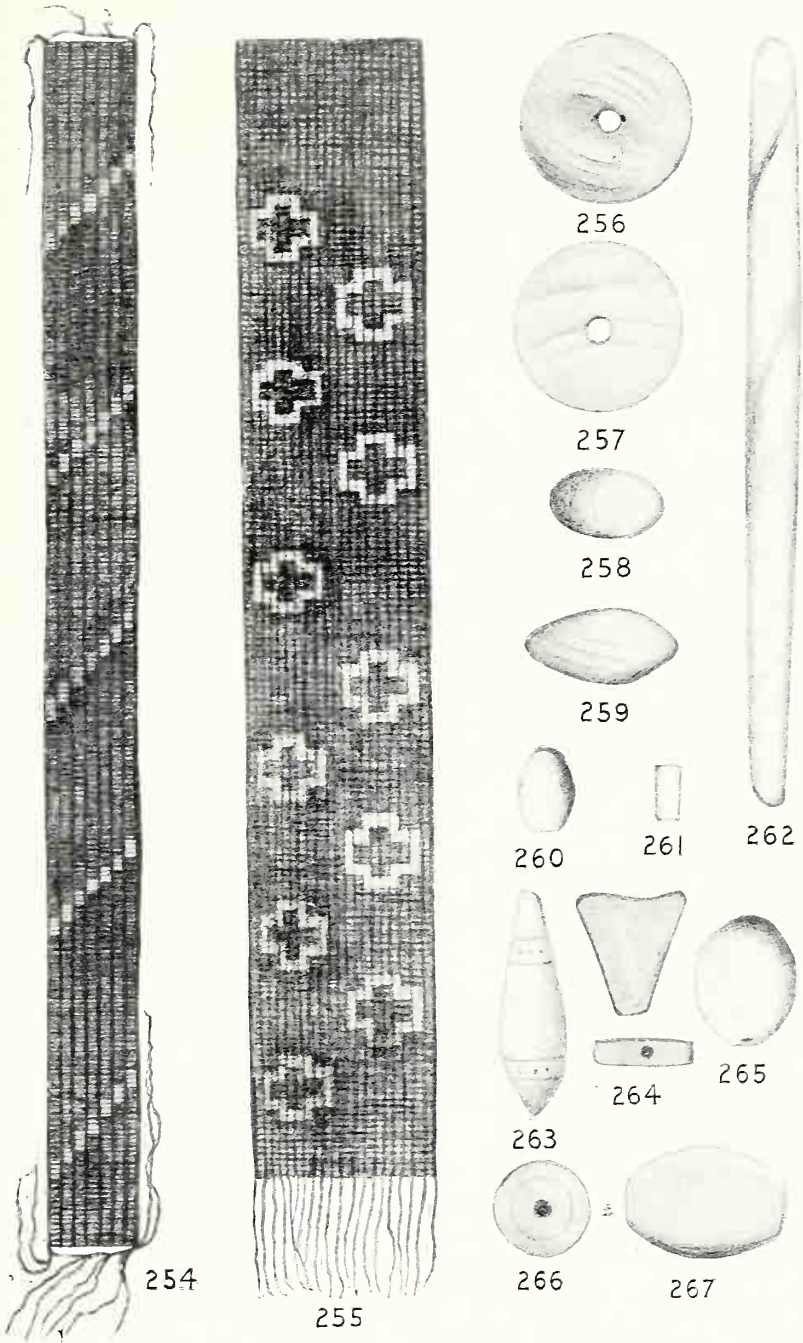


Plate 24

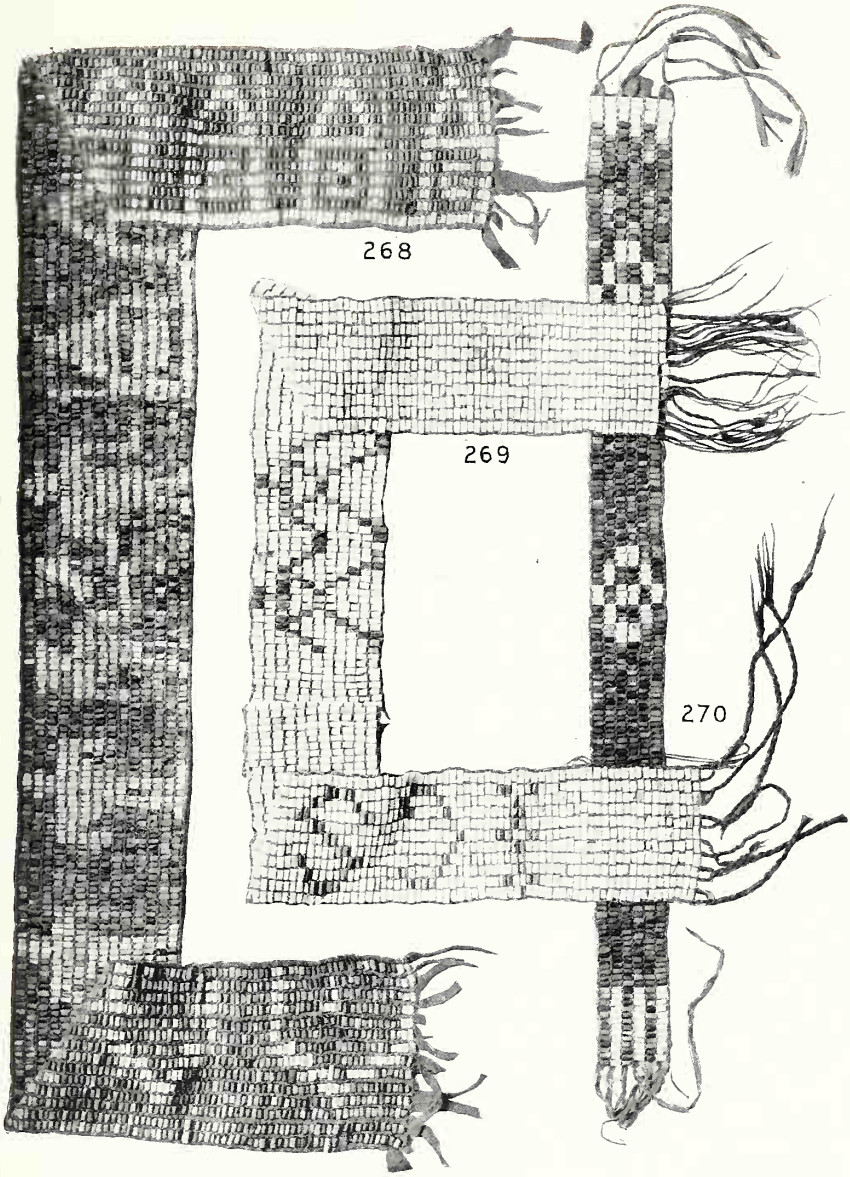
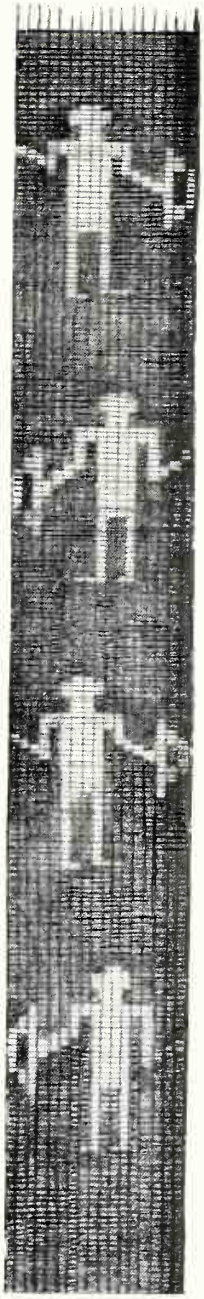


Plate 25

271

272

273



274

Plate 26

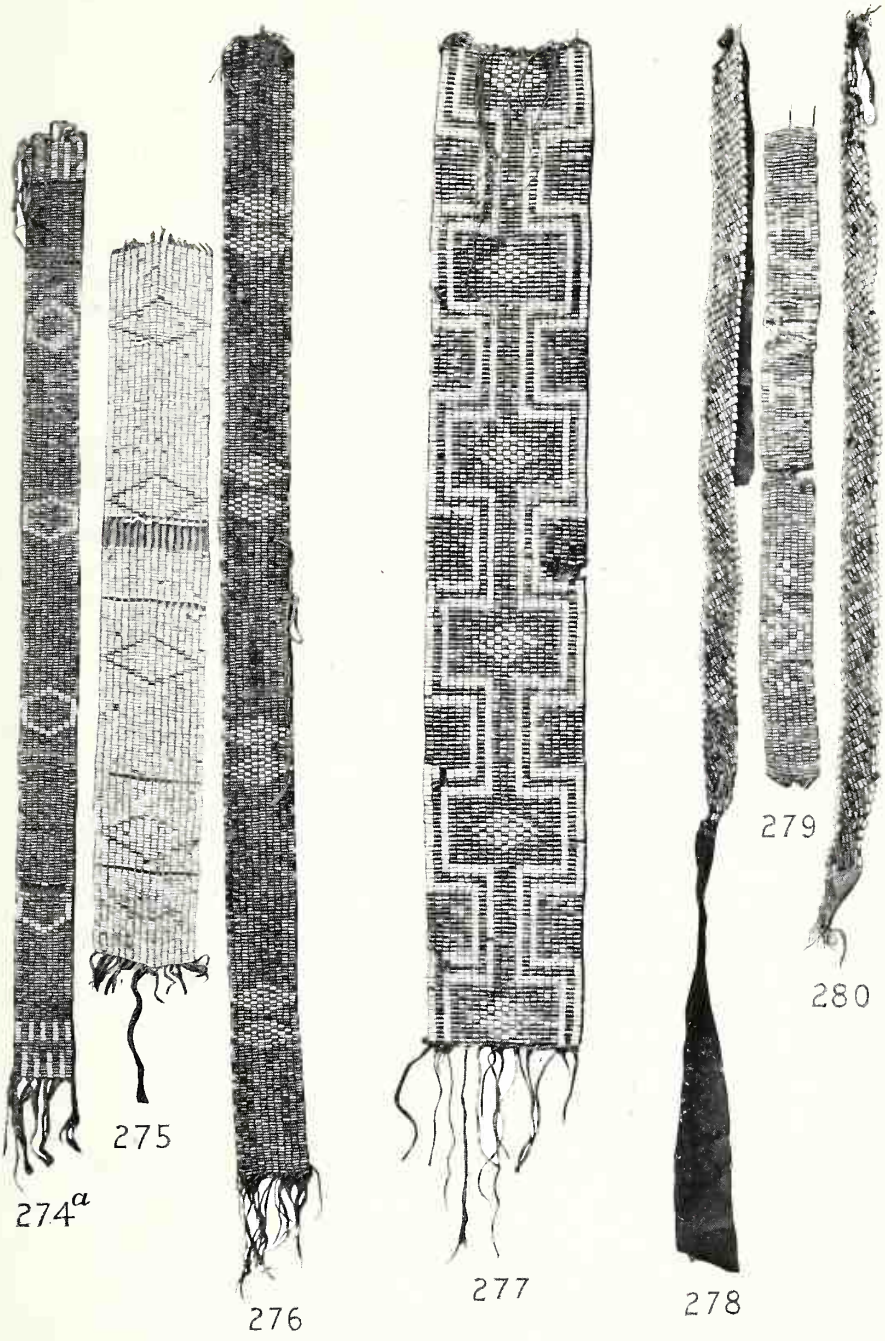
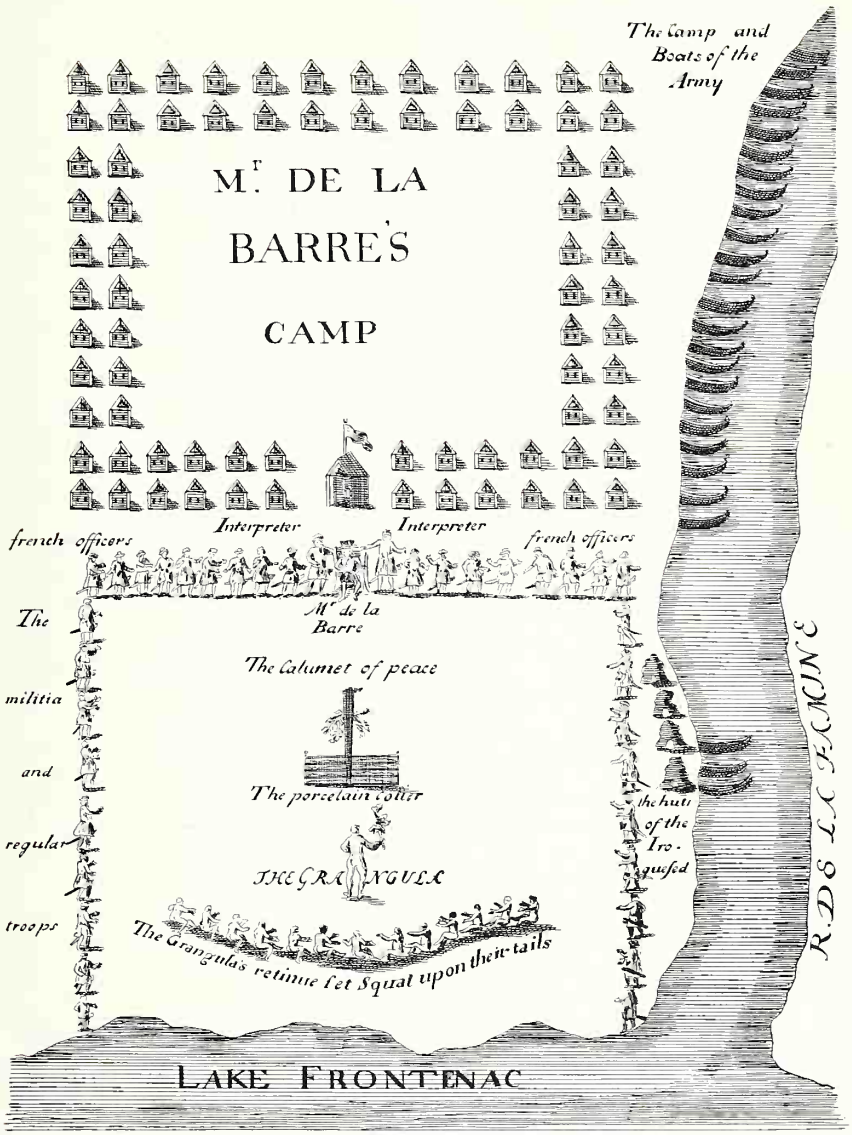


Plate 27

281

Plate 28


The Camp and Boats of the Army
M.r DE LA BARRE'S CAMP
Interpreter
Interpreter
french officers
french officers
The militia and regular troops
M.r de la Barre
The Calumet of peace
The porcelain collar
THE GRANGULA
The Grangulas retinue set Squat upon their tails
the huts of the Iro-quised
R. DE LA MONCE
LAKE FRONTENAC

INDEX

The superior figures tell the exact place on the page in ninths, e. g. 434^{3} means page 434, beginning in the third ninth of the page, i. e. about one third of the way down.

Adams, R. C., quoted, 434^{3}.
Agoiandères, 443^{6}.
Albany, conference of *1754*, 397^{2}.
American museum of natural history, aboriginal shell objects in, 381^{9}-83^{2}.
Atonement, 459^{4}-62^{1}.
Attachments, belts, 431^{6}-35^{2}.
Awlblades, 330^{1}.

Barber, J. W. and Howe, Henry, quoted, 333^{8}-34^{9}; account of wampum manufacture, 350^{2}.
Bartram, John, quoted, 442^{6}.
Beads, 361^{6}-72^{6}; discoid, 365^{1}-68^{4}; early, 336^{7}-37^{8}; glass, 446^{7}-47^{4}; long, 369^{8}-72^{6}; massive, 368^{5}-69^{8}; origin, 338^{6}.
Beauchamp, W. M., quoted, 340^{4}-41^{2}.
Belts, abundance, 435^{3}-38^{6}; acts with, 430^{3}-31^{9}; antiquity, 342^{1}, 404^{3}; attachments, 431^{6}-35^{2}; disposition, 403^{7}-4^{3}; emblematic, 391^{8}-403^{2}; lettered, 390^{1}-91^{7}; making, 384^{6}-88^{3}; origin, 340^{3}; reading, 388^{3}-89^{9}; recent, 404^{4}-30^{3}, 462^{1}; underground, 403^{2}.
Beverley, Robert, quoted, 373^{7}, 379^{4}.
Black Hawk belt, 424^{3}, 429^{2}.
Bou-re, 336^{3}.
Boyle, David, quoted, 348^{2}, 375^{7}, 401^{9}-2^{7}.
Bracelets, 336^{3}.
Bradford, Gov. William, quoted, 355^{5}.
Brant, Joseph, quoted, 454^{8}-55^{1}.
Brant belt of *1750*, 424^{1}.
Bruyas, Jacques, quoted, 357^{9}-58^{1}.
Bryant, W. C., belts held by, 425^{3}.
Buccinum undatum, 329^{1}.
Buck, John, wampum keeper, 383^{5}; belt purchased from, 427^{6}.
Burial, 462^{2}.
Busycon carica, 382^{8}.
Busycon perversum, 328^{4}, 370^{7}, 371^{3}.

Canada, belts from, 398^{9}-99^{4}.
Canadian Algonquin wampum, 365^{5}.
Canadian Iroquois, belts, 415^{8}-17^{1}; fire keepers, 418^{1}.
Carcanets, 336^{3}.
Carrington, Gen. H. B., quoted, 411^{7}, 414^{8}.
Cartier, Jacques, quoted, 359^{9}–60^{3}.
Carver, Jonathan, quoted, 385^{3}.
Catlin, George, quoted, 335^{4}.
Caughnawauga belt, 422^{2}.
Chain belts, 397^{1}, 399^{5}, 418^{9}, 432^{7}.
Charlevoix, P. F. X. de, quoted, 360^{7}, 385^{4}.
Clark, J. V. H., quoted, 410^{1}.
Claus, Capt. William, mentioned, 462^{8}.
Cold, Capt., belts kept by, 410^{2}.
Colden, Cadwallader, quoted, 403^{7}, 433^{4}.
Color of wampum, 455^{8}-57^{4}.
Condolence, strings used in, 346^{5}; belts, 406^{3}, 427^{9}; ceremony of, 447^{4}-55^{1}.
Converse, Mrs H. M., quoted, 365^{5}, 404^{5}-5^{3}, 406^{9}-7^{4}, 407^{8}, 427^{9}–28^{1}.
Cornplanter, belts, 406^{3}, 407^{7}; Indian name, 408^{1}; death, 408^{1}.
Council belts, 388^{2}.
Council wampum, 337^{8}-49^{7}; making, 329^{1}.
Covenant belt, 395^{8}-97^{7}.
Covenant chain belts, 397^{1}, 399^{5}.

Cusick, Rev. Albert, mentioned, 340[4], 452[3].

Dawson, Sir J. W., quoted, 360[4], 366[5].
Death belt of Iroquois, 404[5].
Dehatkatons, 410[2].
DeLancey, Gov. James, quoted, 397[8].
Dentalium, 327[5].
Denton, Daniel, quoted, 332[5].
DeSchweinitz, Edmund, quoted, 345[5], 413[8], 434[1], 445[9]-46[2].
Discoid beads, 365[1]-68[4].
Donaldson, Thomas, quoted, 412[4], 413[3], 414[1], 414[4], 415[2], 415[5].
Do-ne-ho-gá-weh, door-keeper, 404[5], 405[9].
Drake, S. G., quoted, 387[4].
Dutch, wampum introduced by, 340[2].

Emblematic belts, 391[8]-403[2].

Fernow, Berthold, quoted, 356[4].
Fire-keepers, Canadian, 418[1].
Five Nations, *see* Iroquois.
Food and burial, 462[2].
French belts, 398[9]-99[4].
French mission belts, 413[5], 423[7].
French peace belt, 423[5].
Frey, S. L., quoted, 336[8]-37[4], 337[7].
Frontenac, Count, reception of belts, 431[4].
Fulgur carica, 328[4].
Furman, Gabriel, quoted, 350[3].

Garangula, mentioned, 403[6], 440[3].
Glass beads, 446[7]-47[4].
Goniobasis shells, 331[6], 360[6].
Goodwin, S. H., belts, 426[4].
Gorgets, 379[4]-81[8].
Gy-ant-wa-hia, 408[1].

Hale, Horatio, conference with Iroquois chiefs, 417[2]; quoted, 341[3], 406[1]; on condolence, 451[1].
Haliotis, 327[6], 329[8].
Harrington, M. R., list of shell objects, 381[9]–83[2].
Hays, John, quoted, 386[6].
Heckewelder, J. G. E., quoted, 388[4], 389[2], 403[2], 456[4].
Hemlock, Martha, belt obtained from, 428[3].
Hiawatha, regulated use of wampum, 338[8]; meaning of name, 341[2]; legends relating to, 338[8]-41[2], 420[3]-21[8]; lived 300 years ago, 421[9]-22[1].
Hiawatha belt, 411[8]-12[2], 416[7], 419[9], 420[3], 422[8].
Hildburgh, W. L., mentioned, 390[6]; quoted, 425[5].
Hill, Abram, wampum given by, 345[7], 348[9]; disposal of beads, 348[1].
Ho-de-no-sau-nee, 404[5]. *See also* Iroquois.
Holmes, W. H., quoted, 328[7], 350[1], 368[5], 377[6], 393[7]-94[1]; mentioned, 380[2].
Ho-nan-ne-hó-ont, 406[1].
Ho-no-we-na-to, 383[4].
Hotreouaté, 403[6], 440[3].
Hough, F. B., quoted, 434[8]-35[1].
Hubbard, William, quoted, 352[1], 384[7].
Huron belts, 425[9], 427[6].
Hurons, use of wampum, 343[7].

Iroquois, belts representing formation of league, 408[6], 410[3], 411[5], 416[5], 420[3]; belts in custody of Onondagas, 410[1]; death belt of, 404[5]; legends, 338[9]-41[2]; reception at Montreal, 349[3]; use of wampum, 338[7]-40[8], 366[1]. *See also* Six Nations.

Jogues, Father, quoted, 378[6].
John, Andrew, quoted, 408[4].
Johnson, Sir William, belts, 388[9], 395[1]-97[9]; dish belt, 428[7]; quoted, 395[4], 456[9]-57[1].
Jones, Peter, quoted, 348[3], 401[5].
Josselyn, John, quoted, 387[8]-88[1].

Kalm, Peter, quoted, 378[8], 379[8].
Kidder, Frederick, mentioned, 402[9]-3[1].
King Philip, belts, 387[3].
Knives, 378[3]-79[3].

Krehbiel, H. E., quoted, 415[8]-17[1].

Lafitau, J. F., quoted, 379[6], 385[2], 403[8]-4[1].
La Fort, Abram, wampum keeper, 383[5]; belts held by, 412[9].
La Fort, Daniel and Thomas, account of Onondaga belts, 419[7]-21[8].
La Grand Gueule, mentioned, 403[6].
La Hontan, Baron, quoted, 404[7], 440[2].
Lamberville, Father Jean, quoted, 403[6].
Leclercq, Chretien, mentioned, 435[9].
Le Moyne, Father, quoted, 442[3].
Lescarbot, Marc, quoted, 336[2].
Lettered belts, 390[1]-91[7].
Littorina irrorata, 329[2], 332[2].
Littorina rudis, 382[7].
Long, John, quoted, 388[9], 397[8].
Long beads, 369[8]-72[6].
Loskiel, G. H., quoted, 333[5], 384[8]-85[1], 386[4], 389[5], 456[2], 460[1].
Lossing, B. J., quoted, 335[3].
Lothrop, S. K., mentioned, 441[6].

Marginella, 331[7].
Margry, Pierre, quoted, 400[7]-1[2].
Marshe, Witham, quoted, 445[5].
Masks, 377[5].
Massive beads, 368[5]-69[8].
Matachiaz, 336[3].
Melampus bidentatus, 331[4], 370[7].
Melania, 360[5].
Melantho shells, 331[6], 360[6].
Milet, Father, quoted, 443[5]-44[8].
Mohawk words relating to wampum, 357[7].
Mohawks, belts belonging to, 409[8], 428[5]; totem belt, 427[2]; peace belt, 429[2].
Money, wampum as, 351[3]-56[5].
Montanus, Arnoldus, quoted, 359[1].
Morgan, L. H., quoted, 340[1], 383[4], 385[6]-86[2], 405[8]-6[1], 450[9]-51[1], 459[8].
Mucksuck, or awls, 330[1], 331[1].
Muxes, 330[2].

Nassa obsoleta, 382[6].
New England, introduction of wampum, 355[4].
Nicola, Mrs Lizzie, belts obtained from, 430[3].

O'Callaghan, E. B., quoted, 343[7], 349[4], 356[3], 359[3], 396[2], 398[9]-99[2], 401[8], 439[5], 443[3].
Oliva shell, 382[6].
Oneida belt, 429[3].
Onondaga, council held at, 433[4].
Onondaga United States covenant belt, 394[5].
Onondagas, use of wampum, 343[9]-44[3]; names for wampum, 358[4]; wampum keepers, 383[4]; University of the State of New York made wampum keeper, 405[1], 423[3]; belts, 410[1], 414[3], 419[5]-23[4].
Ornament, wampum used for, 356[6]-65[1].
O-ya-ta-je-wah, 383[5].

Paige, E. W., quoted, 419[8]-21[8].
Paludina, 360[5].
Paris, belts in museum of Trocadero, 425[7].
Parker, Gen. E. S., belt held by, 404[4]; wampum received at a condolence, 454[6].
Peag, 338[5].
Pendants, 376[2]-77[3].
Penn belt, 393[3], 424[8]-25[2].
Penobscot belts, 429[8].
Philip, King, belts, 387[3].
Pierron, Father, quoted, 448[2].
Pins, 377[6]-78[3].
Pipes, 359[7], 369[9].
Pontiac's wampum belt, 401[2].
Puckwhéganash, 331[1].
Pyrula canaliculata, 333[3].
Pyrula spicata, 328[6].

Ransom belt of wampum, 407[1].
Reading of belts, 388[4]-89[9].
Recent belts, 404[4]-30[3], 462[6].

Red Jacket, quoted, 418[8]; belt, 423[8].
Reichel, W. C., quoted, 345[2].
Rings, 377[4].
Roddy, T. W., belts belonging to, 423[4].
Runtees, 372[6]-76[1].

Sagard, T. G. le, quoted, 356[8], 356[9]-57[3].
Schoolcraft, H. R., quoted, 343[5], 366[7], 372[8]-73[2], 374[1].
Seawant, 332[7], 338[5], 344[5].
Senecas, name of shell bead, 358[2]; belts held by, 404[6], 407[3]; doorkeepers, 405[8].
Shell beads, *see* Beads.
Shell fish, food of aborigines, 462[2].
Shell objects, miscellaneous, 381[9]-83[3].
Shells, as ornaments, 327[6].
Six Nations, represented by six strings, 345[9]-46[5]; belts, 395[7], 418[9]; peace belt, 424[6]; chiefs, 417[5]. *See also* Iroquois.
Skan-a-wah-ti, 383[5].
Smith, Mrs E. A., quoted, 339[1].
Spangenberg, A. S., receipt for wampum string, 345[4].
Stone, W. L., quoted, 419[1], 446[3].
Sycotypus canaliculatus, 328[3], 371[4].

Te-at-gah-doos, 383[5].
Tecumseh, belts held by, 408[4].
Thacher, J. B., belt held by, 422[3].
Thatcher, B. B., quoted, 350[6].
Thompson, B. F., quoted, 330[5], 332[9]-33[2].
Thompson, W. N., belt obtained from, 408[3].
Tobias, W. N., belt obtained from, 409[2].
Tooker, W. W., quoted, 329[3], 330[1], 333[2], 367[1]; mentioned, 338[6].
Tribute, 457[4]-59[4].
Turtle forms, 363[6]-64[2].

Underground belts, 403[2].
Unio beads, 331[5].
Unio complanatus, 368[3], 378[3], 379[3].
Unio rectus, 378[3].
Unio rosaceus, 379[3].
Unio shell, 382[2].
University of the State of New York, wampum keeper, 405[1], 423[3].
Ut-ha-wa, belts kept by, 410[2].

Van der Donck, Adriaen, quoted, 330[8], 332[4].
Venus mercenaria, 327[8].
Vienna, belts in Imperial museum, 425[9].
Vignols, 336[3].

Wampum, abundance, 349[8]-51[2]; color, 455[8]-57[4]; hanging, 442[1]; lack of, 455[2]; list of authorities on, 321-26; making, 327[2]-36[7]; material, 327[5]; as money, 351[3]-56[5]; origin, 338[7]; uses, 438[6]-46[7]; used for ornament, 356[6]-65[1]. *See also* Council wampum.
Wampum-keepers, 383[3]-84[6], 405[1], 423[3].
Wampum-pipes, 359[7], 369[9].
Wampum trade, original seat, 332[2].
War belts, 405[4], 424[4].
Washington, Pres., record of treaty with, 422[2]; belt given by to Six Nations, 418[7].
Washington, belts in national museum, 408[3].
Webster, Thomas, wampum keeper, 383[5]; belts held by, 413[2]; quoted, 414[2], 414[5], 415[3], 419[5].
Weiser, Conrad, quoted, 383[9]-84[8], 393[3], 442[7].
Williams, Roger, quoted, 332[8], 338[2].
Winthrop, John, quoted, 330[7], 355[2], 356[2].
Wolf belt, 427[2].
Women's nominating belt, 428[4].
Wood, William, quoted, 338[3].
Wyman, W. C., belts, 428[7], 430[2].

Zeisberger, David, wampum keeper, 383[6].
Zinzendorf, Count, wampum string, 345[2], 349[6].

New York State Museum
PUBLICATIONS

Bulletins Memoirs

Museum bulletins. New York state museum. Bulletins. v. 1–9, O. Albany 1887–date. *Price to advance subscribers, 75 cents a year.*

Volume 1. 6 *nos. Price* $1.50 *in cloth*

1 Marshall, W: B. Preliminary list of New York unionidae. 20p. Mar. 1892. *Price* 5 *cents.*

2 Peck, C: H. Contributions to the botany of the state of New York. 66p. 2 pl. May 1887. *Price* [35] *cents.*

3 Smock, J: C. Building stone in the state of New York. 152p. Mar. 1888. *Out of print.*

4 Nason, F. L. Some New York minerals and their localities. 20p. 1 pl. Aug. 1888. *Price* 5 *cents.*

5 Lintner, J. A. White grub of the May beetle. 32p. il. Nov. 1888. *Price* 10 *cents.*

6 —— Cut-worms. 36p. il. Nov. 1888. *Price* 10 *cents.*

Volume 2. 4 *nos. Price* [$1.50] *in cloth*

7 Smock, J: C. First report on the iron mines and iron ore districts in N. Y. 6+70p. map 58×60 cm. June 1889. *Out of print.*

8 Peck, C: H. Boleti of the U. S. 96p. Sep. 1889. *Price* [50] *cents.*

9 Marshall, W: B. Beaks of unionidae inhabiting the vicinity of Albany, N. Y. 24p. 1 pl. Aug. 1890. *Price* 10 *cents.*

10 Smock, J: C. Building stone in New York. 210p. map 58 × 60 cm, tab. Sep. 1890. *Price* 40 *cents.*

Volume 3

11 Merrill, F: J. H. Salt and gypsum industries in New York. 92p. 12 pl. 2 maps 38×58, 61×66 cm, 11 tab. Ap. 1893. *Price* 40 *cents.*

12 ——— & Ries, Heinrich. Clay industries of New York. 174p. 2 pl. map 59×67 cm. Mar. 1895. *Price* 30 *cents.*
New edition in preparation.

13 Lintner, J. A. Some destructive insects of New York state; San José scale. 54p. 7 pl. Ap. 1895. *Price* 15 *cents.*

14 Kemp, J. F. Geology of Moriah and Westport townships, Essex co. N. Y., with notes on the iron mines. 38p. 7 pl. 2 maps 30×33, 38×44 cm. Sep. 1895. *Price* 10 *cents.*

15 Merrill, F: J. H. Mineral resources of New York. 224p. 2 maps 22×35, 58×66 cm. Feb. 1896. *Price* 40 *cents.*

Volume 4

16 Beauchamp, W: M. Aboriginal chipped stone implements of New York. 86p. 23 pl. Oct. 1897. *Price* 25 *cents.*

17 Merrill, F: J. H. Road materials and road building in New York. 52p. 14 pl. 2 maps 34×44, 68×92 cm. Oct. 1897. *Price* 15 *cents.*

18 Beauchamp, W: M. Polished stone articles used by the New York aborigines. 104p. 35 pl. Nov. 1897. *Price* 25 *cents.*

19 Merrill, F: J. H. Guide to the study of the geological collections of the New York state museum. 162p. 119 pl. 1 map 33×43 cm. Nov. 1898. *Price* 40 *cents.*

Volume 5

Bound also with the 52d museum report, v. 1

20 Felt, E. P. Elm-leaf beetle in New York state. 46p. il. 5 pl. June 1898. *Price* 5 *cents.*

21 Kemp, J. F. Geology of the Lake Placid region. 24p. 1 pl. 1 map 33×34 cm. Sep. 1898. *Price* 5 *cents.*

22 Beauchamp, W: M. Earthenware of the New York aborigines. 78p. 33 pl. Oct. 1898. *Price* 25 *cents.*

23 Felt, E. P. 14th report of the state entomologist 1898. 150p. il. 9 pl. Dec. 1898. *Price* 20 *cents.*

24 Felt, E. P. Memorial of the life and entomologic work of J. A. Lintner. 316p. 1 pl. Oct. 1899. *Price* 35 *cents.*

25 Peck, C: H. Report of the state botanist 1898. 76p. 5 pl. Oct. 1899. *Out of print.*

Volume 6
Bound also with the 53d museum report, v. 1

26 Felt, E. P. Collection, preservation and distribution of New York insects. 36p. il. Ap. 1899. *Price* 5 *cents.*

27 —— Shade-tree pests in New York state. 26p. il. 5 pl. May 1899. *Price* 5 *cents.*

28 Peck, C: H. Plants of North Elba. 206p. map 12×16 cm. June 1899. *Price* 20 *cents.*

29 Miller, G. S., jr. Preliminary list of New York mammals. 124p. Oct. 1899. *Price* 15 *cents.*

30 Orton, Edward. Petroleum and natural gas in New York. 136p. il. 3 maps 13×23, 7×22, 9×14 cm. Nov. 1899. *Price* 15 *cents.*

31 Felt, E. P. 15th report of the state entomologist 1899. 128p. June 1900. *Price* 15 *cents.*

Volume 7
To be bound also with the 54th museum report, v. 1, 2

32 Beauchamp, W: M. Aboriginal occupation of New York. 190p. 2 maps 44×35, 93×68 cm. 16 pl. Mar. 1900. *Price* 30 *cents.*

33 Farr, M. S. Check list of New York birds. 224p. Ap. 1900. *Price* 25 *cents.*

34 Cumings, E. R. Lower Silurian system of eastern Montgomery county; Prosser, C: S. Notes on the stratigraphy of the Mohawk valley and Saratoga county, N. Y. 74p. 10 pl. 1 map 32.5x44 cm. May 1900. *Price* 15 *cents.*

35 Ries, Heinrich. Clays in New York: their properties and uses. *In press.*

36 Felt, E. P. 16th report of the state entomologist 1900. *In press.*

Volume 8
To be bound also with the 54th museum report, v. 3

37 Felt, E. P. Catalogue of injurious and beneficial insects of New York state. 54p. il. Sep. 1900. *Price* 10 *cents.*

38 Miller, G. S., jr. Key to the land mammals of northeast North America. 106p. Oct. 1900. *Price* 15 *cents.*

39 Clarke, J: M.; Simpson, G: B. & Loomis, F: B. Paleontologic papers. 72p. il. 16 pl. Oct. 1900. *Price* 15 *cents.*

40 Simpson, G: B. Anatomy and physiology of Polygyra albolabris and Limax maximus and embryology of Limax maximus. *In press.*

41 Beauchamp, W: M. Wampum and shell articles used by New York Indians. 166 p. 7pl. Mar. 1901. *Price* 30 *cents.*

42 Ruedemann, Rudolf. Hudson river beds near Albany and their taxonomic equivalents. *In press.*

43 Kellogg, J. L. Clam and scallop industries of New York. *In press.*

44 Ries, Heinrich. Lime and cement industries in New York. *In press.*

Volume 9

45 Grabau, A. W. Geology and paleontology of Niagara falls and vicinity. *In press.*

46 Felt, E P. Scale insects. *In press.*

47 Merrill, F. J. H. Directory of natural history museums in U. S. and Canada. *In press.*

48 Needham, J. G. Aquatic insects in the Adirondacks. *In preparation.*

Bean, Tarleton. Check list of the fishes of N. Y. *In preparation.*

Museum memoirs. New York state museum. Memoirs. Q. Albany 1889–date.

1 Beecher, C: E. & Clarke, J: M. Development of some Silurian brachiopoda. 96p. 8 pl. Oct. 1889. *Out of print.*

2 Hall, James & Clarke, J: M. Paleozoic reticulate sponges. 350p. il. 70 pl. Oct. 1899. *Price* $1, *cloth.*

3 Clarke, J: M. The Oriskany fauna of Becraft mountain, Columbia co. N. Y. 128p. 9pl. Oct. 1900. *Price* 80 *cents.*

4 Peck, C: H. N. Y. edible fungi, 1895–99. 106p. 25pl. Nov. 1900. *In press.*